Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

by
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DECLARATION

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ABSTRACT

Preschool is a time of rapid language, concept and emotional development. In South Africa, preschoolers face many risk factors, such as lack of stimulation, poverty and education inequality, that may be detrimental to socio-emotional outcomes and may increase potential for anxiety. COVID-19 may exacerbate the previous risk factors listed and directly increase anxiety. Some South African cognitive behavioural therapy (CBT)-based interventions have been developed as a cost-effective way to treat anxiety. However, preschoolers have largely been excluded and the cross-cultural efficacy of well-known CBT-based interventions has not been well examined. For young children, emotion psychoeducation can increase the chance of positive outcomes in CBT-based interventions and can contribute to socio-emotional development directly. There is a scarcity of South African research on emotions, especially in preschool children, and a gap exists with regard to contextually and age-appropriate ways of researching and promoting emotional development.

In order to explore the emotional world of a select group of (n=18) preschoolers (4-6 years old) in the South African context, the non-threatening, contextually relevant imagery of cartoon lion drawings was used to answer the following questions*; 1) What is the status of their emotional vocabulary? 2) What features in the drawings help them to identify the emotions? 3) What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings? and 4) What stories do they use to describe the emotional situations they have experienced?*

Qualitative semi-structured interviews, using a free-labelling approach and open-ended questions on the emotions depicted in the cartoon lion drawings, were used for data collection as it allowed for an exploration of the emotional worlds of preschoolers from their own perspectives.

Content analysis was used and findings showed that participants were able to project their own emotional experiences and understandings onto the lion cartoon character. They were also unintentionally primed to provide insights into how they understand COVID-19 because the cartoon lion character was shown to be wearing a mask when it was initially introduced to the participants. The participants used any situational and contextual cues to create narratives about how the cartoon lion was feeling. This highlights the contextual and narrative way in which this group of preschoolers understood emotion concepts. The content of participants' stories provided for the emotions "sad" and "angry" were very similar. This may be an indication that participants need to further develop their concept of "angry" to be able to differentiate it from general feelings of being "upset". Participants also showed a bias towards describing physical states and struggled to identify an emotion if the contextual cues in the drawing were misinterpreted. However, to the contrary, nuanced emotion concepts such as 'worried", "nervous", "surprised", and "proud" were also introduced.

Knowledge gained from this study showed that storytelling, using a contextually relevant character such as the lion cartoon drawing could be used to encourage emotion concept development. This study also provides motivation to do further emotion and COVID-19 research from preschoolers' own perspectives.

OPSOMMING

Voorskool is 'n tyd van vinnige taal-, konsep- en emosionele ontwikkeling. In Suid-Afrika staar voorskoolse kinders baie risikofaktore in die gesig, soos 'n gebrek aan stimulasie, armoede en ongelyke toegang tot onderwys, wat nadelig kan wees vir sosio-emosionele uitkomste en die potensiaal vir angs kan verhoog. COVID-19 kan hierdie risikofaktore vererger en angs verder verhoog. Alhoewel sommige Suid-Afrikaanse kognitiewe gedragsterapie (KGT)-gebaseerde intervensies ontwikkel is as 'n koste-effektiewe manier om angs te behandel, is voorskoolse kinders egter hiervan uitgesluit. Vir jong kinders kan psigo-opleiding oor emosies die kans op positiewe uitkomste in KGT-gebaseerde intervensies verbeter en sodoende direk bydra tot sosio-emosionele ontwikkeling. Daar is ’n skaarsste aan Suid-Afrikaanse navorsing oor emosies, veral by voorskoolse kinders en ’n gaping bestaan ten opsigte van kontekstueel- en ouderdoms-toepaslike maniere om emosionele ontwikkeling na te vors en te bevorder.

Om die emosionele wêreld van 'n geselekteerde groep (n=18) voorskoolse kinders (ouderdom 4-6 jaar) in die Suid-Afrikaanse konteks te ondersoek, is van ‘n nie-bedreigende, kontekstueel relevante stel leeutekenprente gebruik gemaak om die volgende vrae te beantwoord; *1) Wat is die status van hulle emosionele woordeskat? 2) Watter eienskappe in die tekeninge help hulle om die emosies te identifiseer? 3) Watter stories oor die emosionele situasies gebruik die voorskoolse kinders om die emosies in die stel leeutekenprente te verduidelik? en 4) Watter stories gebruik hulle om die emosionele situasies wat hulle beleef het, te beskryf?*

Kwalitatiewe semi-gestruktureerde onderhoude met 'n vry-etiketteringsbenadering en oop-einde vrae oor die tekenprentleeu wat emosies uitbeeld, is gebruik vir data-insameling, aangesien dit daardeur moontlik was om die emosionele wêrelde van voorskoolse kinders vanuit hul eie perspektiewe te ondersoek.

Inhoudsanalise is gebruik en bevindinge het getoon dat deelnemers hul eie emosionele ervarings en begrip op die tekenprentleeukarakter kon projekteer. Hulle was ook onbedoeld daarop ingestel om insigte te gee oor hoe hulle COVID-19 verstaan, omdat die tekenprentleeukarakter met ’n masker voorgestel is toe dit aanvanklik aan die deelnemers bekendgestel is. Die deelnemers het enige situasie- en kontekstuele leidrade gebruik om narratiewe te skep oor hoe die tekenprentleeu voel. Dit beklemtoon die kontekstuele en narratiewe manier waarop hierdie groep voorskoolse kinders emosiekonsepte verstaan het. Die inhoude van die deelnemers se stories vir die emosies “hartseer” en “kwaad” was baie eenders. Dit mag ’n aanduiding wees dat deelnemers hul konsep van "kwaad" nog verder moet ontwikkel om te kan onderskei van algemene gevoelens van "ontsteld" wees. Deelnemers het ook 'n vooroordeel ten gunste van die beskrywing van fisiese toestande getoon en het gesukkel om 'n emosie te identifiseer as die kontekstuele aanwysings in die tekening wanvertolk word. Aan die ander kant het genuanseerde emosiekonsepte, soos “senuweeagtig”, “verbaas” en “trots”, egter ook na vore gekom.

Kennis wat vanuit hierdie studie bekom is, beklemtoon dat storievertelling, met behulp van 'n kontekstueel relevante tekenprentkarakter, soos dié van die leeu, gebruik kan word om emosiekonsepontwikkeling aan te moedig. Hierdie studie dien ook as motivering om verdere emosie- en COVID-19-navorsing vanuit voorskoolse kinders se eie perspektiewe te doen.

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"There's always a story. It's all stories, really. The sun coming up every day is a story. Everything's got a story in it. Change the story, change the world."

— Terry Pratchett

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Introduction to the Research Project

1.1. Introduction to the Chapter

This chapter will describe the **background** to this study, including a discussion on preschool as a time of change, the anxiety that preschoolers may experience in the South African context and some childhood and adolescent interventions for treating anxiety in the South African context. This section will end with a discussion on the importance of developing emotional competence early in life. The **rationale** of this research includes a discussion on aiming intervention at preschoolers and addressing a gap in knowledge for both preschool and emotion research in South Africa. The **purpose** of this study and the **research questions** will be outlined. Lastly, an overview of the chapters in this thesis will be provided.

1.2. Background to the Research Project

1.2.1. Preschool as a Time of Change

Childhood psychology texts view the preschool years as times of great developmental change and neuroplasticity (Louw & Louw, 2014a; Mash & Wolfe, 2013). According to the authors of a developmental text written with the South African context in mind, the early childhood period is interchangeable with the preschool period and usually refers to the developmental period between the ages of three and six (Louw & Louw, 2014a). During this period, attention, language, concept development, regulation abilities and Theory of Mind develop rapidly (Gelman, 2009; Neuman et al., 2011; Rescorla & Mirak, 1997; Rosenqvist et al., 2014). Preschoolers start to infer the mental states of others in stories and reading tasks and they elaborate on characters using more evaluative language in narratives (Nicolopoulou et al., 2021; Symons et al., 2005). Preschoolers use the causes described in the narratives to understand and infer what others may be feeling (Pons et al., 2004). Mental state inference

starts as young as three years old and develops further during the preschool years (Nicolopoulou et al., 2021). With this rapid cognitive development, it is important to note that preschoolers still cannot read and write although they can typically express themselves through age-appropriate drawings (Loxton, 2009a, 2009b). Storytelling is one of their favourite activities and therefore becomes an important way of understanding their inner worlds (Louw & Louw, 2014a; Loxton, 2009a, 2009b; Nicolopoulou et al., 2021). They also engage in socio-dramatic and fantasy play which allows them the opportunity to expand their sociocultural world and their emotional understanding (Duncan & Tarulli, 2003; Lindsey & Colwell, 2013). Louw and Louw (2014a) describe the preschool period as being firmly situated within Piaget's (1964) pre-operational phase of cognitive development. Piaget (1964 p. 177) described it as the "beginnings of language, of the symbolic function, and therefore of thought, or representation". It is a phase where symbolic/pretend play, deferred imitation and spoken language develop (Louw & Louw, 2014a). Preschoolers are often underestimated in their cognitive abilities. However, they explore, hypothesise and experiment to form theories about the way the world works (Gopnik, 2012). Bjorklund (2018) argues that from an evolutionary perspective, what has been typically understood as immature cognition in the preschool period may actually be evolutionary adaptiveness. Deferred imitation (when a child will repeat behaviour that they have seen before) and play allow for important language development, perspective taking and other cognitive, physical and social skills (Bjorklund, 2018).

1.2.1. Preschoolers in the South African Context

With the importance of cognitive and linguistic development during the preschool stage, one has to take the threats of poverty, lack of cognitive stimulation and illiteracy in the South African context of preschoolers into account (Vally, 2012). South Africa is a resource limited country affected by poverty, inequality and unequal access to quality education and early

childhood development programmes (Statistics South Africa, 2018). It is concerning to note that a publication by Statistics South Africa (2018) found that the implementation of stimulating activities with children under six is severely lacking in South Africa. In 2018, 40,7% of children under the age of six had never been read to or told stories to at home. 30% of children under the age of six did not have anyone who talked with them about their day. South Africa is also a diverse, multi-lingual and multi-cultural country. There is value in cultivating and promoting the 11 official languages in South Africa but it is important to be aware of how both language and the complex cultural landscape may influence children's learning (Chikovore et al., 2012; Wright, 2004). Msila (2014) argues that this socio-cultural context has a substantial impact on the linguistic development of South African preschoolers with many preschoolers being instructed in English even though this is not their first language.

Early stimulation and learning can lead to better socio-emotional outcomes (Walker et al., 2011). Using limited resources and opinion from local academics and clinicians, Kleintjes et al. (2006) established prevalence rates of mental disorders amongst children and adolescents in the Western Cape. Kleintjes et al. (2006) study showed that generalised anxiety disorder, an emotional disorder, was as high as 11%. Even though little is known about the prevalence rates of childhood anxiety, Muris et al. (2006) hypothesised that many of the conditions that South African children live in, due to the entrenched legacy of apartheid segregation and education policies, could cause higher levels of anxiety. These include a multitude of risk factors such as living in deprivation, violence, poverty and with parental over-protection (Louw & Louw, 2014b). In a recent study Howard (2015) conducted a one year follow up on 101 South African preschool children to see if Wege's (2014) finding that anxiety and behavioural inhibition were significantly correlated remained true even after one year. Howard (2015) found, using parent and teacher report, that a relationship between

behavioural imbibition and anxiety remained and anxiety was highest when parental overprotection was also high. Howard et al. (2017) argue that South African preschoolers showed higher levels of behavioural inhibition and anxiety symptoms when compared with the rates and normative scores in western countries. This reinforces the finding that South African children showed higher levels of anxiety and risk for anxiety later in childhood.

At the initial planning stage of this research, the COVID-19 pandemic had not yet reached South Africa. However, with the rapid way in which the pandemic developed globally and in South Africa, COVID-19 had to be incorporated as an important contextual and risk factor in preschoolers' lives. The challenges facing preschoolers such as poverty, inequality and unequal access to education are likely to be exacerbated by the losses incurred during COVID-19. Multidisciplinary teams that include psychologists will have to deal with the psychological and economic impact of COVID-19 long after it is over (Ornell et al., 2020). South Africans are experiencing and will experience the grief of many losses, including loss of income, employment, relationships and freedoms. Children will often experience the same fears and uncertainties while being exposed to fear and anxiety in their parents (Dalton et al., 2020; Jiao et al., 2020). South African children's routines, usually a psychological resilience factor, were disrupted during lockdown and they experienced long school closures (Jiao et al., 2020; Lee, 2020). This is particularly worrying considering the threats of poverty, illiteracy and the lack of stimulating activities such as reading and storytelling in South Africa (Statistics South Africa, 2018; Vally, 2012).

A lack of developmentally appropriate emotion-focused conversations about the substantial changes to the children's lives and their parents' mental states may also cause heightened levels of anxiety (Dalton et al., 2020). Globally, there has also been some concern that young children are showing increased clinginess between the ages of three and six which may be an indication of heightened anxiety (Singh et al., 2020). There is little research on the

effect epidemics have on children in general and not much is known about the immediate and long-term effects of social distancing, school closures and the pandemic itself. However, the possible effects on young children should not be ignored (Dalton et al., 2020; Lee, 2020).

1.2.2. Childhood and Adolescent Interventions in the South African Context

There is evidence that children and adolescents in South Africa face many stressors and high levels of crime, poverty, illness and death in some communities (Louw & Louw, 2014b). This may affect their normative fears, anxiety and their ability to cope (Harrison et al., 2021; Howard et al., 2017; Myburgh et al., 2021a; Zwemstra & Loxton, 2011). Psychological interventions are needed that aim to address the stress and possible anxiety of young South Africans by promoting coping and psychological strengths (Harrison et al., 2021). Following their finding that anxiety proneness and anxiety symptoms were high amongst South African preschoolers when compared with western countries, Howard et al. (2017), recommended further research into CBT-based interventions for South African preschool children with anxiety problems. Now with possibly higher levels of poverty, unequal education and anxiety due to COVID-19, the use of universal, preventative CBT-based intervention programmes would be an efficient and cost-effective way of treating anxiety symptomology (Mostert & Loxton, 2008; Rosenstein & Seedat, 2011). However, the exploration of the utility and adaptability of CBT-based intervetions in a South African context has been limited (Young, 2009).

Adapting Interventions to the South African context. With little adaptation to the South African context, *FRIENDS*, a universal classroom CBT-based prevention programme developed in Australia (Barrett, 2005) showed promising potential long-term outcomes amongst a group of 66, 12-year-olds (Mostert & Loxton, 2008; Mostert, 2007). Well-known international programmes such as the Coping Cat programme which is appropriate for

children between the ages of 7 and 13 (Kendall, 1990, 2000) and the Australian adaptation of Coping Cat (Heard et al., 1991) use imagery that may not be contextually appropriate for South African children. For example, they use a cat character and a koala bear character in these programmes. Stallard (2019) argues that images have to be familiar to provide concrete ways for children to understand CBT principles. Two major CBT-based interventions that have been developed, implemented and evaluated in the South African context include a programme called *Positive and Motivating programme (PAM)* (Visagie, 2016) and *I am BRAVE (*Myburgh, 2019). *Positive and Motivating programme* (PAM) was created based on the principles of well-known CBT-based interventions and was adapted for visually impaired children using a guide dog metaphor. It was implemented and evaluated amongst a group of 52 children between the ages of 9 and 13 (Visagie et al., 2021). *I am BRAVE* was an intervention programme that adapted some aspects of the Coping Cat programme. It was implemented and evaluated amongst 21 children between the ages of 9 and 14 from a low resourced farming community (Myburgh et al., 2021a). In this recent evaluation study, an anxiety screening tool, the Spence Child Anxiety Scale (SCAS) was used to screen the participants anxiety levels. It showed linguistic and context-specific interpretations of items (Myburgh et al., 2021b). For example, when consultants were asked about an item on the scale which explained a scenario where the child was struggling with breathing without a reason, they denied the possibility of this. According to them, there had to be reason for the breathing difficulty. The reason also had to be physical in nature. For example, from running around. “Shy” was also a term more appropriate to the scenario of speaking in front of a class than terms such as “afraid” or “fear”. These examples point to the importance of developing programmes and outcome measures specifically designed for the South African context. More research is therefore needed to understand contextual, cultural, and linguistic

considerations for childhood and adolescent interventions and prevention programmes for childhood in the South African context.

Middle childhood and adolescence have been researched in terms of feelings and anxiety in South Africa (Harrison et al., 2021; Howard et al., 2017; Myburgh et al., 2021a; Zwemstra & Loxton, 2011). There has also been some research on early intervention and prevention based on the first 1000-day principle that acknowledge the importance of attachment and early stimulation for childhood cognitive outcomes (Richter et al., 2019; Tomlinson et al., 2021; Vally et al., 2015). However, there is a gap in knowledge when it comes to understanding the transportability and transferability of interventions for the preschool age group.

Age-appropriateness of CBT-based Interventions. Hirshfeld-Becker et al. (2010) have hypothesised that the global reluctance to include preschool children in CBT-based interventions may be because it is believed that they might not be developmentally ready for some techniques used. Children using CBT-based interventions have to be developmentally able to identify emotions and connect emotions, situations and thoughts together as these are core attributes of the treatment (Stallard, 2005, 2019). There is scepticism around whether preschoolers have the necessary skills to identify emotions and the emotional competence necessary to participate in CBT-based interventions. This is particularly relevant in South Africa where even children in middle childhood seemed to lack the necessary emotional vocabulary to benefit from a CBT-based intervention (Mostert & Loxton, 2008; Mostert, 2007). For this reason, CBT-based programmes adapted for children have mostly focused on middle childhood even though the preschool years may also be the most beneficial for early intervention and prevention efforts, considering that it is a time of great developmental change and neuroplasticity (Frankel et al., 2012; Luby, 2013). Younger children do not seem to benefit from CBT-based interventions as much as older children and adults (Grave &

Blissett, 2004). This phenomenon was also found in South African children. Myburgh et al. (2021a) found that the younger children in her study on 9–14-year-olds showed less improvement than the older group.

The most promise for adapting CBT-based techniques and making them developmentally appropriate for preschoolers has been shown when the CBT-based materials are in concrete, creative and simplified forms such as cartoons, imagery and metaphors (Grave & Blissett, 2004; Stallard, 2019). In this form, abstract concepts that preschoolers may struggle to relate to can be transformed into something concrete, understandable and child-friendly (Frankel et al., 2012; Luby, 2013; Stallard, 2002, 2005). CBT-based programmes have proven to be effective when they include an initial phase of emotion psychoeducation and when the interventions are matched to the children's level of development (Stallard, 2002, 2005).

Emotional Competence. In CBT-based interventions, being able to identify emotions is an important prerequisite for many of the skills and techniques used to decrease emotional disorders such as anxiety (Frankel et al., 2012; Suveg et al., 2017). A study by Davis et al. (2019) also suggests that outcomes of CBT-based treatment for anxious children are improved if children have some emotional awareness prior to treatment. Suveg et al. (2017) argue that anxious children may have difficulty labelling and changing the intensity of their emotions.

In the book titled "*The development of emotional competence*" Saarni (1999) describes emotional competence as having the self-efficacy and skills necessary to navigate and understand diverse emotion-eliciting experiences. A person with emotional competence would be able to strategically apply their knowledge of culturally appropriate situational and expressive cues, vocabulary and concepts in order to discern, identify and/or understand their own emotions and the emotions of others.

Recognition and the ability to label emotions improves with age and correlates with vocabulary improvement in childhood. By the age of three to five, children can label many emotions and can identify situations that cause specific emotions (Durand et al., 2007; Pons et al., 2004; Wang et al., 2014; Widen, 2013). However, the emotions “happy”, “sad” and “angry” are the most accurately identified and there is often confusion between negative valanced emotions (Bailey Bisson, 2019; Durand et al., 2007; Székely et al., 2011; Wang et al., 2014; Widen & Russell, 2010). The same pattern can be found amongst South African preschoolers (Buchanan, 2007; DeKlerk et al., 2014). This is because childhood are born with broad categories of feeling “good” and feeling “bad” which get differentiated into further categories as other emotion concepts develop. Therefore, emotion differentiation, for example being able to distinguish between “sad” and “angry”, is contextually dependant and occurs as vocabulary and understanding of contextual cues develop (Nook et al., 2015; Pollak et al., 2019; Rosenqvist et al., 2014; Widen, 2013).

A key consideration in the development of emotional competence would be how often caregivers discuss emotions with their children as this directly affects young children’s ability to label, recognise and regulate emotions (Katz et al., 2012). Caregivers will also start using emotion words with children at different times based on variable factors such as culture, economic status and social norms (Hoemann et al., 2019). Early development of emotional vocabulary and competence directly influences children’s ability to regulate emotion and shows long-lasting social, academic and psychological benefits (Barrett et al., 2001; Hoffmann et al., 2020; Katz et al., 2012; Louw & Louw, 2014a; Rosenqvist et al., 2014).

1.3. Rationale for the Study

1.3.1. Aiming Intervention at Preschoolers

Emotional competence interventions during preschool would both increase the chances of successful CBT-based interventions (Davis et al., 2019) but would also directly benefit social, academic and psychological development (Barrett et al., 2001). Therefore, prevention efforts should be aimed at improving preschoolers' emotional vocabulary and competence. For example, *Yale Center for Emotional Intelligence* has developed an evidence-based programme called *RULER* for informing teachers and parents how to intervene and teach preschoolers' emotional skills, such as recognising and understanding emotions and improving their nuanced emotional vocabulary (Hoffmann et al., 2020). However, prevention efforts should also be contextually appropriate for South Africa as has been seen with the cross-cultural concerns of CBT-based programmes and Anxiety Scales (Myburgh et al., 2021a, 2021b; Young, 2009). In South Africa some of the only emotion intervention research targeting preschoolers is the *Ububele persona dolls programme*. The programme trains teachers to use the dolls to teach emotional literacy (Buchanan, 2007; Irish, 2009). Prevention and promotion of mental health should also take a developmental perspective (Petersen et al., 2012). However, as mentioned previously research "with" and not "on" preschoolers is limited in South Africa (Loxton, 2009a, 2009b).

1.3.2. Age appropriate, Contextually relevant Emotion research in South Africa

In order to focus emotion prevention efforts on South African preschoolers, we need to understand their emotion competency and emotional development from within their context. There is some research on emotion vocabulary and competence in South Africa (such as Du Toit, 2009; Jonker et al., 2011; Nicholls, 2008; Sekwena & Fontaine, 2018; Watson et al., 2012) and some research on preschoolers in South Africa (such as Buchanan, 2007; DeKlerk

et al., 2014; Irish, 2009; Loxton, 2009a, 2009b; Moen & Joubert, 2015; Msila, 2014). However, from what the researcher could ascertain, the only research published on emotion in preschoolers in South Africa is limited to: a study by Loxton (2009a, 2009b) on fears, coping and coping strategy efficacy; a study by DeKlerk et al. (2014) on emotional recognition in preschool and two unpublished papers on the *Ububele programme* (Buchanan, 2007; Irish, 2009) (see literature review for details). Preschoolers' own views, obtained from semi-structured interviews, of their emotions has been neglected globally. In the South African context, the use of semi-structured interviews to understand children's own views on their emotions and feelings is limited (Loxton, 2009a, 2009b). In fact, in the South African context, using semi-structured interviews with preschoolers has been limited in general (Loxton, 2009a, 2009b; Moen & Joubert, 2015).

The use of drawings and storytelling for this age group within the South African context has proven to be a child –friendly and non-threatening way to understand the internal world of preschoolers from their own perspective (Buchanan, 2007; Loxton, 2009a, 2009b; Moen & Joubert, 2015). Preschoolers are able to share their inner worlds, their feelings and thoughts through drawings and narratives (Loxton, 2009a, 2009b; Moen & Joubert, 2015). Le Roux and Costandius (2013) also found that their South African preschool participants enjoyed storytelling and enjoyed creating their own narratives.

A gap therefore exists in the literature when it comes to understanding the emotions of preschoolers, from their own perspective, especially in a multi-lingual, multi-cultural context. Age appropriate and contextually relevant research is needed if we want to build on the scant knowledge base on South African preschoolers' emotions. The findings could contribute to the development of effective age appropriate and contextually relevant prevention interventions in South Africa. They could inform programmes that aim to promote psychosocial benefits and improve the outcomes of CBT-based interventions. Universal

interventions targeting children in preschool settings could be seen as a safe and non-threatening strategy to shift the focus from treatment of anxiety disorders and symptoms to prevention (Kösters et al., 2012).

1.4. Purpose of the Study

The aim of this study is to gain a better understanding of the emotional vocabulary and understanding of a group of preschoolers from a preschool in a mixed-income and diverse community of the Western Cape. This could allow for contributions to the development of future early interventions to promote the psychological well-being of young children from a South African context.

1.5. Research Questions

This study proposes using a child-friendly and contextually appropriate set of cartoon lion drawings to portray versions of four basic emotions - happy, angry, scared and sad - to answer the following research questions:

Research question 1: What is the status of the emotional vocabulary of a group of South African preschoolers?

Research question 2: What features in the drawings help the preschoolers to identify the emotions?

Research question 3: What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings?

Research question 4: What stories do the preschoolers use to describe the emotional situations they have experienced?

Professor Helene Loxton developed the concept of a cartoon lion drawing to be used as a child-friendly, contextually appropriate research technique to facilitate communication about

emotions in this age group, based on her extensive experience with anxiety research within the South African context (for example Loxton, 2009a, 2009b). In this case, child-friendly refers to the fact that a set of cartoon lion drawings would be concrete, visually appealing and understandable to preschoolers. It is helpful to use familiar images, characters and stories to engage preschoolers (Stallard, 2019). The concept of a lion in South Africa is familiar and contextually appropriate. Using imagery and storytelling would mean taking the participants age and inability to read and write into account. Lastly, it would create a non-threatening atmosphere (Loxton, 2004) (See child-friendly data collection methods for more detail on imagery and storytelling). In 2015, Megan Howard, a former Master's student who also contributed towards the field of anxiety research in young children (Howard, 2015; Howard et al., 2017) collaborated to create a set of cartoon lion drawings (See illustrations, Appendix A) for this purpose. Permission was obtained from Ms Howard via the researcher's supervisor, Professor Loxton, to use the set of cartoon lion drawings for fulfilling the requirements of this master's thesis, provided that the necessary acknowledgement will be given (See permission, Appendix B).

1.6. Overview of the Chapters

In **Chapter 1**, the background to this research was provided, with a specific focus on preschoolers in the South African context. The rational for this study, particularly the importance of emotion competence in preschool, as well as the research questions were discussed. The chapter was concluded by providing an overview of the thesis.

In **Chapter 2**, the relevant literature regarding emotion recognition, specifically literature on the development of emotion recognition in early childhood, will be outlined. The controversies about what methodologies should be used in early childhood emotion

recognition research and the lack of child-friendly research methods in the extant literature will be discussed.

Chapter 3: Various developmental theories and contextual frameworks will be discussed. The theoretical framework that shapes this thesis, the Conceptual Act Theory, will be explained. Both the universal and contextually specific aspects of childhood emotional development will be outlined using this theory,

In **Chapter 4**, the methodology chosen for this particular study will be discussed. The discussion will focus on the description and background of the data collection instrument (non-threatening set of cartoon lion drawings). A justification for using semi-structures interviews follows. The trustworthiness and the authenticity of the research and the inductive content analysis process will be outlined. Lastly, the situated, contextual ethical approach which allows for flexibility when working with children in a particular context will also be discussed.

Chapter 5 will report on the results of this study in the form of seven conceptual maps. The chapter will discuss how the participants conceptualised pictures and drawings, emotion and stories.

In Chapter 6 the emotional vocabulary of the group of preschoolers will be discussed as well as the features of the drawings that the group of preschoolers relied upon. Lastly, the stories provided to explain emotional situations for the set of cartoon lion drawings and the stories they used to describe their own feelings will be discussed. The importance of narratives in preschool will be highlighted.

Chapter 7 Finally, the limitations of this research and the recommendations for future research and intervention and prevention efforts will be discussed. Concluding remarks will be provided.

1.7. Chapter Summary

This chapter discussed the background of this study. Namely, it discussed preschool as a time of change, the risk factors that preschoolers face in the South African context, the age and contextual appropriateness of childhood and adolescent interventions in South Africa and the importance of emotional competence for the preschool period. The rationale highlights the gap in knowledge for both emotion and preschoolers in the South African context. Lastly, the purpose and research questions that guide this research were discussed.

Chapter 2:
Literature Review

2.1. Introduction to Chapter

This chapter will outline a discussion on **emotion in early childhood. This discussion will include** literature on *1) The definitions of emotion*, 2) *the developmental pathway of emotion* as well as the *3) methodology debates* that have saturated emotion recognition research. This review will also highlight literature that points to the importance of **child-friendly data collection methods particularly** *natural observation* and the literature around the method that will be used in this study, *semi-structured interviews*.

2.2. Emotion in Early Childhood

A search for relevant literature was conducted using techniques recommended in a Stellenbosch University library workshop on the (23rd January 2019) with Faculty Librarian: Arts and Social Sciences, Mrs Marleen Hendricksz. Selected and available e-databases for example, EBSCOhost, Academic Search Premier, African Journals, Google Scholar, Scopus and Sage Journals, were used to search for keywords such as; 'Emotion', 'Preschool', 'Early Childhood' 'Emotion recognition' 'Emotion development' and 'South Africa'.

While deliberating on whether there is a rise in "affectivism" due to the impact of affective science, Dukes et al. (2021) note that emotion or affect research has increased drastically in the last 40 years. Some of the key disciplines in which research on emotions and feelings has proliferated are general linguistics, neuroscience and developmental studies. Neuroscience, with improvements in technology, paved the way for understanding how brain circuitry and anatomy facilitated affective processes. General linguistics has looked at how emotions are referred to in different parts of the world. Most notably for this research, in

developmental sciences, the important role of emotion in human development has been highlighted (Dukes et al., 2021).

2.2.1. Defining Emotion, Affect and Valence

Researchers' understanding of the origin of emotion or the development of the ability to differentiate between emotions and to label emotions directly depends on their understanding of what emotions are (Gross & Barrett, 2011). However, there is still and has been for many years, much debate about the definition of emotion and whether emotions are universal or culturally specific (Lindquist et al., 2013). There is a consensus amongst scholars that emotions are useful to humans and can be used as tools in social interaction and for survival (Lindquist et al., 2013). They highlight what is important, what needs attention and what can safely be ignored (Dukes et al., 2021). Despite these commonalities, theories about emotion can differ substantially from one another. In a review by Gross and Barrett (2011) they discuss emotion theories along a continuum. On the one side of the continuum are the basic emotions theorists. These theorists believe emotions are cross-cultural, universal and neurologically hard-wired responses to stimuli outside in the world (for example; Ekman & Cordaro, 2011; Izard, 1994). According to them, there are four to seven universal basic emotions. These include happiness, anger, sadness, fear, surprise and disgust (Ekman & Cordaro, 2011; Izard, 1994). Any other emotions are considered as varied intensities of these (Ekman & Cordaro, 2011).

On the opposite end of the continuum are the social constructionist theorists that claim emotions are socially constructed and cannot be separated from cultural roles, scripts and language (Harré, 2009; Mesquita & Boiger, 2014). There are also theories that lie in between these two extremes on the continuum. Some theorists emphasise the importance of the role of cognitive appraisals of context in switching specific unique mental states such as

emotion states on and off. Each unique mental state has a unique internal response (Ellsworth, 2018; Lazarus, 1982).

Psychological construction theorists claim that people are constantly constructing emotions by making meaning of internal bodily sensations, basic psychological processes and the external world (Barrett, 2014; Lindquist et al., 2013). They believe there are no universal emotions but rather speak of universal basic psychological processes or ingredients such as affect, valence and arousal. Affect is another term for feelings of pleasure and displeasure or feelings that have a positive or negative valence - feeling bad or feeling good. Arousal is the level of physiological excitement or energy a person is feeling and can be low or high (Barrett, 2017).

Due to different understandings of universality in these emotion theories, debate was raised about whether children have an innate ability to recognise basic emotions from facial expressions. Especially considering that children start to mirror emotion expressions from infancy (Holodynski & Seeger, 2019). Evolutionary psychologists, such as Izard (1994), who is a proponent of the basic emotion standpoint, believe that children have evolved an innate ability to recognise the emotion signals in the faces of others for survival. This inspired many studies that tried to prove that children would be able to automatically recognise emotions from pictures of faces from birth (see review by Gross & Ballif, 1991).

2.2.2. The Developmental Pathway of Emotions

The research detailed in the review (Gross & Ballif, 1991) showed that children follow a developmental pathway when it comes to understanding emotion and being able to recognise emotions in others. Most research has shown that the ability of children to recognise and label emotions improves with age (Gross & Ballif, 1991; Rosenqvist et al., 2014; Székely et al., 2011; Wang et al., 2014; Widen, 2013). There is also a distinct pattern in which these

emotion labels emerge. ‘Happy’, ‘sad’ and ‘angry’ are the first labels to be used and applied with the most accuracy in early childhood (Bailey Bisson, 2019; Gross & Ballif, 1991; Székely et al., 2011). Gross and Ballif’s (1991) review of facial recognition research on children showed that by four to five years of age, children can distinguish between happiness, sadness, anger, surprise or fear and to a lesser extent they can identify disgust. However, happiness and sadness are used most often and are often the most accurate. Bailey Bisson (2019) compared the results across five different recognition tasks that test emotion understanding amongst a group of 54 preschoolers and also found happiness and sadness to be regularly and accurately identified across these tasks. Pons et al. (2004) claim that by age three to five, children can label basic emotions and can identify situations that caused emotions. They argued that children fall into three developmental phases for emotion comprehension. Between three and seven years old, the preschool years, children fall into what they call an external phase of emotion comprehension. They can recognise external emotion signals such as facial expressions and situational cues that allow them to identify and label emotion.

2.2.3. Methodology Debate

However, in the studies discussed in Gross and Ballif's (1991) review, the age at which children are able to label emotion from facial expressions differs depending on the methodology used. The two differing methodologies include affect matching or affect description. Affect matching is a non-verbal task that requires the matching of a facial expression to an emotion or an alternative target facial expression. A less common method includes encouraging young children to model emotions from vignettes or labels (Bailey Bisson, 2019). This type of methodology was developed to navigate the difficulties of conducting research on different cultures or on young children who do not have fully developed verbal abilities (Bailey Bisson, 2019; Gendron et al., 2014). An affect description

task requires verbal responses where children have to know the labels or vocabulary for emotions. These methods often require a free-labelling response where no labels are provided (Gross & Ballif, 1991; Nelson & Russell, 2016; Widen, 2013).

Children performed much better on the affect matching tasks than the tasks that required free-labelling, verbal responses. This leads Gross and Ballif (1991) to argue that children did worse in verbal intensive tasks because these tasks test the children's verbal ability rather than their emotional understanding. However, Rosenqvist et al. (2014) conducted a study that suggested this may not be the case. They gave 370 children of three to six-years-old an affect matching task and found that their linguistic abilities correlated with affect matching ability, even in a non-verbal task. They concluded that language is an important predictor of emotion recognition ability even when the task does not require verbal responses.

The fact that children perform much better in non-verbal tasks and forced choice tasks and the fact that language influences results could indicate that previous emotion recognition studies using this methodology may overestimate the age at which children can identify basic emotions. This methodology might be showing a false rate of emotional understanding by limiting what emotions children can attribute to the facial expressions (Widen, 2013).

2.2.4. An Alternative Explanation to Universality of Basic Emotions

Children will use whatever contextual information they are provided to try and provide an educated guess about what is being portrayed (Nook et al., 2015; Pollak et al., 2019; Widen, 2013). Nelson and Russell (2016) conducted five separate studies on two to four-year olds and five to ten-year olds to determine if previous studies overestimated the age at which children are able to identify emotions. Their studies all found that children would label a novel facial expression (a picture of a person with puffed-out cheeks) with a made-up emotion label (the researchers used a made-up emotion called pax). They theorised that the

children did this by using a process of elimination. The children were given three emotions, two of which were familiar to them (e.g. happy and sad). It was made clear to them that they could say there was no emotion but they identified the novel expression as “pax”. If a free-labelling task followed this, the children would freely label the novel expression with the made-up word “pax”, showing that the children had actually learnt this emotion during the study. Nelson and Russell (2016) argue that young children could be doing this in matching tasks and showing an illusionary recognition of emotions. According to them, children only start recognising the distinct basic emotion facial expressions at a later age than previous studies have indicated. They can only recognise the emotion once they have actually learned the labels and expressions for that emotion.

More recently, Shablack et al. (2020) conducted a study to show how preschoolers may learn emotion adjectives. They found that preschoolers between the ages of three and five would identify made up words as emotions depending on how a sentence was framed and what situational context was provided. If the made-up word was framed in a sentence that indicated it was a feeling or internal state or if situational cues were provided to indicate a feeling, the word was more likely to be associated with an emotion image.

When using other methodology such as free-labelling of emotions, Widen and Russell (2010) found that younger children were only able to provide two labels - either happiness and sadness or happiness and anger. They only provided one label of positive valence and one of negative valence. Fear and disgust were labels that emerged when children were older.

Other studies have shown that children would organise and match emotions based on similarities in terms of high or low arousal or similarities based on physical facial features, such as crying or smiling (Widen, 2013). It is also possible that sorting can take place due to something other than valence or physical features, such as action. For example, with a sample of 65 adults from the Namibian Himba tribe, they found that participants would sort the facial

expressions by action, such as smiling and looking, rather than by emotional content (Gendron et al., 2014).

Children as young as four do better at distinguishing emotion when they are given a task that provides them with more contextual information, such as a cause and consequence of an emotion, rather than just a facial expression. This is known as the face-inferiority effect (Wang et al., 2014; Widen, 2013; Widen & Russell, 2010). This is especially true for emotions such as “surprise” and “fear” where facial expressions may be similar (Cheal & Rutherford, 2013; Widen & Russell, 2010).

However, Widen and Russell (2010) state that as children’s understanding of emotion increases, the cue that is relied on to perceive the emotion may change. This is because there has been some conflicting results where the face-inferiority effect does not seem to apply to very young children. Pons et al. (2004) and Strand et al. (2016) argue for a toehold hypothesis where more complex aspects of emotion concepts only develop after the recognition of facial expressions.

According to some studies, the mouth and the eyes convey important emotional information and are readily used to identify emotions (Cannoni et al., 2021; Wegrzyn et al., 2017). Bombari et al. (2013) looked at how 24 participants around the age of 25 processed emotional facial expressions. They found that people identify emotions by looking at a face holistically. However, participants relied on specific features to identify some emotional facial expressions more than others, for example, the facial expressions for happiness and fear. The mouth was relied on to detect happiness, while the eyes were relied upon to perceive sadness and anger. Participants relied on both the mouth and the eyes to perceive fear (Bombari et al., 2013). Holistic processing of emotion in facial expressions was also found in preschoolers aged five to six (Durand et al., 2007). However, studies that focus

solely on facial expressions seem to lack ecological validity (Pollak et al., 2019; Widen, 2013).

People rely on facial expressions and body postures holistically and in context to identify emotions (Aviezer et al., 2012a, 2012b; Witkower & Tracy, 2018). Children use a variety of emotional cues to determine emotions. These cues include gestures, voices and situational cues. Mondloch et al. (2013) conducted a study on six-year-olds and found that children as young as six processed face and bodies holistically. They found that perception of emotion was affected when the body and face presented to the participant were not congruent i.e. when a sad face was put on a fearful body. This was true if the emotions were similar, for example, sad and fear but not if the emotions were dissimilar such as happiness and sadness (Mondloch, 2012). Six-year-olds showed the same pattern of recognition as the adults in this study (Mondloch et al., 2013). Nelson and Mondloch (2017) found that slightly older children of eight years old also used both face and body posture to identify emotion. This lead the authors to argue that future studies should use more emotional stimuli to test emotion recognition. Visual, social, and cultural contexts affect what concept knowledge is activated when people are perceiving emotions. Even providing participants emotion labels seems to activate conceptual knowledge and increases the accuracy and speed with which emotions are perceived (Nook et al., 2015). This is because outside of research contexts emotions are shown dynamically in a particular context, using the whole body. They are not experienced as static, stereotypical facial expressions (Nelson & Mondloch, 2017; Székely et al., 2011; Widen, 2013).

Widen and Russell (2010) argue that children are not born with adult-like categories of emotion. They are born with broad valence-based (negative and positive) categories of affective states. As they learn language and have more social experiences, they differentiate

these feelings of pleasure/displeasure into further categories based on contextually dependent emotion development (Widen, 2013).

In line with this theory of differentiation, Székely et al. (2011) conducted a large-scale study on 808 children of three years of age. They found that the children often confused emotions with a negative valence (angry, sad, and scared). They argue that this was most likely due to the similarity of the cues in the facial expression. The cues, such as tears or a downward turned face, relate more to the valence of the emotion than to a distinct emotion category. Happiness is one of the easiest emotions to distinguish because most variations of happiness include some sort of smile.

2.2.5. *Emotion Recognition and Literacy research in the South African Context*

In South Africa, DeKlerk et al. (2014) conducted a study on 90 Afrikaans and Sepedi speaking five to six-year-old children in the Limpopo Province and also found the most agreement between Sepedi and Afrikaans children between the ages of five and six occurred when it came to choosing a target emotion for happiness. Buchanan (2007) wrote her thesis on emotion vocabulary amongst a group of South African preschoolers taking part in the *Ubebela persona doll* intervention and also found "happy" and "sad" to be the most common emotion adjectives used. In this programme the life-sized dolls are given a history, a family, personality, likes and dislikes. The class of preschoolers is given a chance to interact with these dolls. In these activities, the children were able to recognise the feelings of others, as well as why they were feeling that way (Buchanan, 2007). They are also able to project their own experiences onto the doll through storytelling about their feelings and thoughts (Irish, 2009). Buchanan (2007) argues that a possible explanation for why the most prominent emotion adjectives used were "happy" and "sad" could be because the preschoolers were using general categories of good and bad (Buchanan, 2007). Human (2018) conducted a descriptive thesis based on qualitative data and even had similar findings in older South

African school aged children between the ages of 7-11. The children did better with identifying the feelings from the stories describing emotional situations. However, they also used terms for emotions with negative valence such as ‘bad’ and ‘hurt’. There was also some confusion between anger and sadness. Therefore, even these school aged South African children could have been understanding emotions in terms of broader categories of positive and negative valence with little differentiation between emotions that fall under these categories.

The lack of differentiation in a South Africa multilingual, multi-cultural context could be an important indicator that language is an important predictor of emotion recognition ability. However, it is unclear whether it is an indication of a lack of understanding or could rather be attributed to cultural and linguistic differences. However, it is important to note that DeKlerk et al.’s (2014) study, undertaken in the Limpopo province, showed that the differences in the way Sepedi children and Afrikaans children matched emotion to a line drawing of a facial expression were significant. This was despite the fact that all the children had been tested beforehand using a vignette to make sure they understood the emotions they would have to match. This implies that these differences were due to culture and language affecting recognition of emotions rather than understanding.

2.3. Increasing Child-Friendliness of Data Collection Methods

Studies on facial emotion recognition often uses photographs of adults and children’s faces displaying stereotypical emotions (Székely et al., 2011; Wang et al., 2014). These studies are not particularly child friendly or age appropriate. Some novel emotion studies make use of different methodologies that are more child friendly where they used drawings, cartoons and stories (Misailidi & Bonoti, 2008; Pons et al., 2004; Shablack et al., 2020; Widen & Russell, 2010). These studies have made an effort to match the data collection methods to the children’s developmental level. However, the assessment methods that have been described

so far have mostly been quantitative in nature or fail to gauge the preschoolers own perspectives used in these studies. The matching and free-labelling methods that have been discussed earlier, have mostly relied on quantitative analysis methods. Two further assessment methods show promise for gaining insight into the preschoolers world of emotions from their own perspective. They include:

2.3.1. Naturalistic Observational Investigations:

Studies can make use of a method of observing preschoolers in their natural environment (see review by Gross & Ballif, 1991). For example, Buchanan (2007) used this method with the group of South African preschoolers engaging in the *Ubebele Persona Doll* Programme in order to be as unobtrusive as possible. She observed the preschoolers telling stories and interacting with the dolls in order to count and identify the emotional adjectives used.

2.3.2. Semi-structured Interviews

In order for a study to be child-friendly, it should be considerate of the developmental level of the child. Child-friendly research for preschoolers should therefore be age appropriate and non-threatening. They should be allowed to tell their own stories about emotional experiences without having to read or write (Ebrahim, 2010). The benefit of using qualitative semi-structured interviews allows participants to be a part of the research process (Loxton, 2009a, 2009b). The research is being done “with” the preschoolers and not “on” them.

Storytelling and cartoon imagery are concrete ways for children to relate to tasks with which they are presented (Friedberg & Wilt, 2010; Stallard, 2002, 2005, 2019). Children can more easily relate to cartoons and stories than they can to photographs of adults pulling staged facial expressions. They are also able to infer mental states onto narrative stories as young as three years old (Nicolopoulou et al., 2021). Storytelling was found to be a non-threatening, familiar activity to build rapport with preschoolers (Loxton, 2009a, 2009b).

Loxton (2009a, 2009b) found that a selected group of 152 South African preschool children (between 5 and 7 years) were able to discuss their feelings and were able to express their fears; discussing nightmares, lions and tigers as well as imaginary creatures like monsters and ghosts using age-appropriate, child-friendly methods. These preschoolers, using child-friendly, age-appropriate interview methods consisting of storytelling and drawing, were able to talk about a potentially negative emotion such as fear without feeling threatened.

This literature review highlights the importance of context and methodology when researching emotion. It also pointed to an important gap in the research. There is a need to understand preschoolers' emotions from their own perspective and from within a South African multi-lingual, multi-cultural context.

2.4. Chapter Summary

Key concepts such as emotion, affect and valence in emotion research were defined. Controversies about emotions, the developmental pathway of emotions and the difficulties with methodologies used in emotion recognition research with preschoolers were discussed. These controversies include the debate about whether to use free-labelling versus forced-choice methodologies and how this may affect the research and findings on the developmental pathway of emotions. The importance of contextual and situational cues in the recognition of emotions was also highlighted. The over-reliance on quantitative, context free facial recognition methodologies justifies the use of qualitative interview methods with preschoolers.

Chapter 3:
Theoretical Framework

3.1. Introduction to the Chapter

The developmental theories of Piaget (1964) and Vygotsky (1929) will be discussed below in order to highlight various debates that have taken place in developmental theory. These debates parallel the debates that have existed in emotion theories and the origin or development of emotion recognition and expression. The theory of Bronfenbrenner (1977) will be discussed to highlight the importance of context in development. The African Psychology framework will be discussed to acknowledge the western influence and values that may permeate these theories. The importance of local knowledge and context is highlighted. The Conceptual Act Theory (Barrett, 2014), while it is a theory developed in North America, is a theory that emphasises how language and context influence emotion development and is therefore chosen as the theory that frames this study. While this is the main theory that will be used, other theories will be discussed in order to acknowledge the theories that have fundamentally shaped development research. No one developmental or emotion theory alone could explain the complex nature of emotion and development.

3.2. Childhood Developmental Theories

3.2.1. The Universal Child vs the Child in Context

Typically, emotional development theories have been based on adult-emotion theories without any developmental considerations (Pollak et al., 2019). Camras and Shuster (2013) have urged for non-developmental and developmental researchers to work together to advance research on adult emotion and its developmental origins. They argue that both developmental data and theories as well as the controversies that have emerged in adult-oriented emotion literature need to be carefully considered in order to do this.

The theories of developmental psychologists, Bronfenbrenner (1977), Piaget (1964) and Vygotsky (1929) can be applied to emotion recognition research. Theorists like Piaget (1964) and Vygotsky (1929) sparked a debate about whether there are universal stage-based changes that occur in childhood or whether childhood is characterised by culturally dependent development through learning. This debate closely parallels the debates of universal emotional understanding versus contextually relevant emotional understanding. Piaget's (1964) early work on childhood stages of development and the idea of a 'universal child' permeated early childhood research, especially the idea that children follow similar paths of cognitive development (Kampmann, 2014). Developmental change, for Piagetians, is seen as change caused by universal growth and maturation (Fowler, 2016). For Vygotsky (1929) and the socio-cultural theorists, the development is continuous and change is caused by experience or learning within a specific socio-cultural context (Fowler, 2016).

3.2.2. The Child in a Socio-political Context

Bronfenbrenner (1977) also highlighted the importance of context by pointing out that a child develops within a nested set of changing structures embedded within each other. The child grows within the immediate environment and the larger social contexts. The South African child and their learning is therefore embedded in changing political, linguistic, and cultural structures.

However, the theories that have been mentioned so far were all developed from a Western/Eurocentric perspective. Ratele (2017) argues that Psychology in Africa should be African-centred. At the same time, 'African Psychology' is heterogenous in nature and can look different at different times. In the most well-known form, African Psychology is about culture, tradition, and metaphysics. However, at it its core, African Psychology is about being critical of the hegemony of western values in psychology. Local knowledge and understanding are vitally important. For example, African imagery should be used when

developing South African interventions rather than transporting the characters and imagery that have been used in Western/Eurocentric interventions. For example, the use of a set of cartoon lion drawings in this study should be relevant to many South Africans (See introduction for discussion on the set of cartoon lion drawings).

3.3. Psychological Constructionism: The Conceptual Act Theory

Although it is not exclusively a developmental theory, the Conceptual Act Theory (Barrett, 2014) has been chosen to frame this research. While the background of multiple developmental and contextual theories has been explained in this chapter, this theory is the only theory that has been chosen because it encompasses research on emotion and can explain processes in emotion development. A criticism of using this theory, as with many of the developmental theories presented here, is that it is a theory that has been developed in North America from a Western/European perspective. However, due to the importance placed on context and language in this theory and the lack of research on emotion in South Africa, it may allow for an opportunity to add to local knowledge on emotion. A unique South African understanding of emotion may start to develop.

The Conceptual Act theory (Barrett, 2014) is a psychological constructivist theory that shapes this research. It acknowledges that there are universal, developmental processes such as vocabulary and concept development that allow for the context-dependant emotion development in childhood. It combines research findings from adult-emotion research while taking the developmental insights of the above-mentioned developmental theorists into consideration. There is also place for acknowledgement that there may be sensitive periods (times where sensory input has its greatest impact) in childhood that would facilitate better emotional competence. Periods of neuroplasticity or periods of rapid language development or concept categorisation would be an example of these sensitive periods (Woodard & Pollak, 2020). Despite these universal aspects, emotions according to this theory are constructed and

therefore emotion understanding and development is shaped by language, culture and learning (Barrett, 2014).

Psychological constructionists believe that emotions are the product of more simple psychological ingredients that allow for the construction of emotions (Cunningham, 2013; Lindquist et al., 2015). The Conceptual Act theory (Barrett, 2014) claims that our brains automatically make sense of affect, physiological sensations (such as arousal, hunger, adrenalin etc.) and sensory input from the immediate environment using conceptual knowledge about emotions. Conceptual knowledge about emotion includes stored representations of emotional situations, emotional expressions and emotion labels and is inherently influenced by society, culture and past experience (Barrett, 2014).

3.3.1. Universal aspects of Emotion development from a Conceptual Act Theory perspective

According to this theory, all children are born with the ability to distinguish positive feelings from negative feelings. They will also feel different levels of physiological arousal. When they are born, they are immediately introduced to facial expressions which they start to imitate (Holodynski, & Seeger, 2019). From birth onwards, children learn how to organise experience based on how others organise experience (Gelman, 2009). They have an innate ability to make sense of the world by conceptualising and organising their reality into categories using the concepts they learn (Gelman, 2009). Concepts can be passed on from generation to generation. However, children do not passively receive this information but rather actively process it. Research has shown that children will use the labels that they have learned to categorise even dissimilar objects and treat them as the same or alike.

In fact, in a study by Gelman and Markman (1987) the researchers showed that three-year old children rely on categorising objects together solely based on the fact that objects have the same label rather than on their physical similarities. Children will hear their

caregivers use an emotion-concept or label for a range of diverse instances of experience (internal, external, physiological or abstract) and will try to look for the similarities in those instances. They will then be able to apply this label to other instances based on the perceived similarities. The emotion-concepts that the children have learned will be their best guess at categorising emotional experiences with perceived similarities (Hoemann et al., 2019). For example, if a parent constantly connects experiences such as crying, being quiet and withdrawing to a label of sadness, children will look for the similarity between these instances because they have been given the same label. For example, they could notice that the label is always used when they feel 'bad' inside or when they have feelings with a negative valence such as when they have lost something or received bad news. In this way, children form emotion concepts like "happiness", "anger" and "sadness". During the period from two to four years old language acquisition, and therefore concept development, is rapid. By four years old, children are able to speak in complete sentences and describe complex situations (Rescorla & Mirak, 1997). As children get older, they may acquire and develop more complex concepts. For example, they could perhaps distinguish between feeling disappointment rather than sadness when getting bad news because they have developed more nuanced emotional concepts as their emotional vocabulary has improved.

3.3.2. Culturally specific aspects of Emotion development from a Conceptual Act Theory perspective

Language can be a powerful way to convey how experience can be organised and language is directly influenced by socio-cultural context. As children improve their emotional vocabulary by learning and forming more emotion concepts, they become increasingly adept at recognising emotions of others in their culture (Lindquist et al., 2015). The number of words in children's vocabulary and rate of acquisition may vary between children depending on environmental influences (Hoff, 2006). Caregivers may impart emotion-concepts to children

at different times depending on culture and socio-economic context (Hoemann et al., 2019). Therefore, it is important to take the multi-lingual and multi-cultural context of South Africa into account, and in particular the context of the proposed study in the Western Cape. In the Western Cape three predominant languages are spoken: Afrikaans, English and isiXhosa. The languages of tuition at the preschool institution where the proposed research took place were Afrikaans and English.

In this study, emotion is therefore understood as being constructed. Our brains use conceptual knowledge, affect and physiological sensations to make sense of the context around us. Conceptual knowledge about emotion is developed rapidly during infancy and early childhood and emotional understanding and differentiation is facilitated by concept development.

3.4. Chapter Summary

The theoretical framework used in this research is clearly defined as the Conceptual Act theory (Barrett, 2014). However, developmental theories such as Piaget's (1964) and Vygotsky's (1929) socio-cultural theory are outlined as they point to important developmental understandings. Bronfenbrenner's (1977) ecological model points to the importance of understanding the systems that a child is embedded in, including cultural and socio-political systems. African Psychology allows us to acknowledge that these theories, as well as the main theory chosen, the Conceptual Act Theory (Barrett, 2014), are based on Western/European understandings of development and emotion. Emotion understanding and identification is shaped by culture, language and contextual concept development in the Conceptual Act Theory (Barrett, 2014). The developmental appropriateness of this theoretical framework has also been discussed with a particular focus on debates of universality and cultural specificity.

Chapter 4
Research Methodology

4.1. Introduction to Chapter

The literature review has shown how important the type of methodology is to the outcomes of the studies and our understanding of emotion development in childhood. In this chapter, the methodologies that have been adopted for this research will be discussed. A child-centred approach informed all aspects of this methodology (Loxton, 2009a, 2009b). Children experience their worlds and emotions in dynamic situations and from within a particular context and the methodology used should take this into consideration (Pollak et al., 2019). This chapter will discuss the **rationale** of the research, **the research questions**, **the research design** and the set of **cartoon lion drawings as a data collection instrument**. **The process of the research** includes a *description of the research participants*, *research setting*, *procedure and the research steps*. Limitations of the methodology and the process of data analysis will be described in detail. Lastly, the **ethical guidelines** that were followed in this research will be discussed.

4.2. Rationale

Emotion identification and understanding is an important pre-requisite for CBT-based interventions and beneficial for development in general. Both the literature review and theoretical framework have emphasised the importance of context in the development of emotion in childhood (Barrett, 2017; Stallard, 2005; Widen & Russell, 2010). However, there is very little research on the development of emotions in preschool in a South African context. Understanding preschoolers' emotions in a South African context would allow us to assist in developing CBT-based psychoeducation or other emotion prevention and development strategies for this age group.

4.3. Research Questions

In a research field that has been dominated by studies that use photographs of staged emotional facial expressions, the aim of this research was to use a child-friendly, contextually appropriate set of cartoon lion drawings to answer the following research questions:

1) What is the status of the emotional vocabulary of a group of South African preschoolers?
2) What features in the drawings help the preschoolers to identify the emotions?
3) What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings?
4) What stories do the preschoolers use to describe the emotional situations they have experienced?

4.4. Research Design

A cross-sectional design, that was exploratory and descriptive in nature, was used as each participant was only interviewed once over the course of a week. The exploratory and descriptive nature of the research allowed the researcher to prioritise exploring the emotional vocabulary and emotional situations provided without providing conclusive results about the preschoolers' emotional understanding (Bless et al., 2013). The qualitative approach and the open-ended questions allowed for collaboration between the interviewer and the preschoolers in order to explore their social reality from their own perspective. Their own understandings of emotions and feelings were explored.

Qualitative data collection methods included individual semi-structured interviews with participants using open-ended questions (see Appendix C for interview schedule). Responses were recorded and transcribed. In recent history there has been a movement towards increasing children's participation, including children's voices and being reflective about the inherent power adults may have over children in research (Barker & Weller, 2003;

Clark, 2005; Griffin et al., 2014). Past research shows that emotion recognition studies are often conducted "on" children rather than "with" children (see for example Gross and Ballif's, 1991 review). Emotion research has typically tried to uncover context-free truths, using quantitative research to find a universal framework for emotional development.

This increases the appeal of using a qualitative research approach that looks at the context-bound realities of a group of children at a specific preschool within the South African context (Keikelame & Swartz, 2019). South African children's voices should be included in emotion recognition studies. Using this approach allowed the participants to tell their own stories, giving them a unique opportunity to describe emotional experiences using their own words and understanding. The insights gained from this approach may not have been as clear if the study was a quantitative one. The last study to use semi-structured interviews using drawing and storytelling with preschoolers in South Africa to explore emotions was Loxton (2009a, 2009b). Therefore, the aim of this research was not to generalise the findings but simply to use the voices and stories of the children to explore their experiences of emotion using a novel methodology such as the one presented below.

4.5. A Set of Cartoon Lion Drawings as a Data Collection Instrument

4.5.1. Description of Instrument

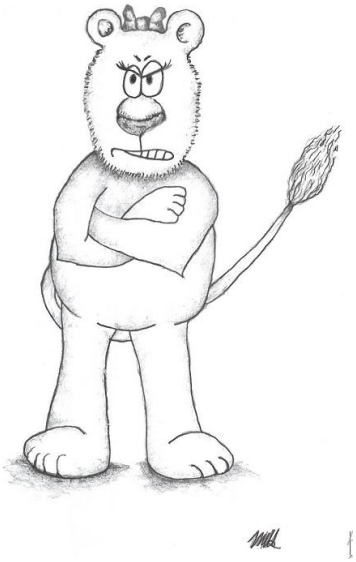
In order to explore the preschoolers' view of emotions, a set of cartoon lion drawings was used (See Appendix A for full-sized illustrations that were laminated and used in the interviews). The set of cartoon lions are portrayed using two genders with facial expressions as well as body gestures depicting four emotions, namely: "Happy", "Angry", "Scared" and "Sad".

Figure 1: *the set of cartoon lion drawings*

Illustrated by Meghan Howard

Leo the Brave Lion (Happy)

Lea the Brave Lioness (Happy)



Illustrated by Meghan Howard

Leo the Brave Lion (Angry)

Lea the Brave Lioness (Angry)

Illustrated by Meghan Howard

Leo the Brave Lion (Scared)

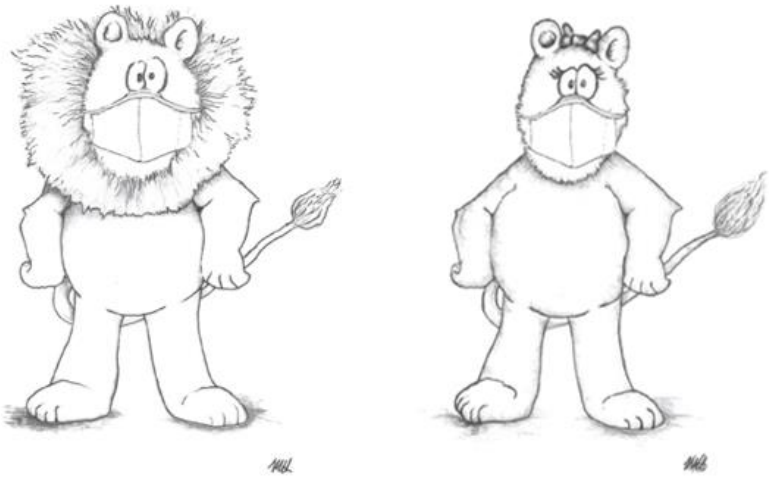
Lea the Brave Lioness (Scared)

Illustrated by Meghan Howard

Leo the Brave Lion (Sad)

Lea the Brave Lioness (Sad)

This set of drawings was also adapted for the COVID-19 context. A further set of cartoon lion drawings was added where the lions are wearing masks. It is important to note that the set of cartoon lion drawings with masks was not intended as a data collection instrument but was rather built into the rapport building activity to make the participants comfortable with the use of masks in the interview setting (Please see ethical considerations 4.9 for further details).



Illustrated by Meghan Howard

Leo the Brave Lion (Adhering to the Covid-19 protocols)

Lea the Brave Lioness (Adhering to the Covid-19 protocols)

4.5.1. Background of Instrument

The drawings make use of the developmental tendency of preschoolers to over-extend human traits or qualities onto non-human objects. In a pioneering paper based on a set of experiments on five- to six-year-old children, Inagaki and Hatano (1987) concluded that this tendency of children is not a sign of immaturity as was previously believed. Contrary to this, they believe preschoolers are able to differentiate between humans and non-humans. They

believe that preschoolers have this tendency because they are providing an educated guess about the qualities or traits of the non-human object by extending the human qualities onto that object. This is because the non-human object is less familiar to them but still similar to humans. This tendency is especially true with unobservable traits such as feelings. Therefore, this developmental tendency could provide a child-friendly way of finding out what the preschoolers know about feelings.

Within the South African context, Loxton (2009a) has found that one of the most frequently mentioned animals in her research about common fears amongst a group of preschool children was a lion. A set of cartoon child-friendly and non-threatening lion drawings may be more relevant to preschoolers than staged photographs of facial expressions when exploring emotion recognition ability. Pollak et al. (2019) has stated that scholars have typically studied the emotional development of children using still, posed faces with no body or context. Although this set of cartoon lion drawings is not dynamic nor does it provide a lot of context for the emotion, it does provide body gestures and a novel method for exploring these preschoolers' emotional world. From working in the field of anxiety and coping in preschoolers Loxton (2009a, 2009b), initiated the use of a context specific image that she felt most South African children would relate to. Stallard (2019) argues that the use of familiar images is a concrete way to engage with younger children and to help them understand difficult concepts. Consultations with children, school teachers, caretakers, parents and experts in the field lead Loxton (2009a, 2009b) to come up with the concept of *Leo the Brave Lion* and *Lea the Brave Lioness* (See Appendix A). The cartoon lion drawings symbolise bravery and courageousness and are non-threatening and child-friendly (Supervision discussion with Prof Loxton). The set of cartoon lion drawings were presented to the participants one at a time (Please see Research Steps 4.6.4 for a description of the application of the set of cartoon lion drawings).

4.6. Research Process

4.6.1. Research Participants

All of the children from the ages of four to six, at a preschool in the Stellenbosch winelands region of the Western Cape, were invited to participate in the study. These participants were recruited from the same geographical area as the participants in the study by Howard et al. (2017) on anxiety in preschool and a study on fear and coping by Loxton (2004, 2009a, 2009b). Informed consent forms were sent home with 38 participants and 18 of these forms were sent back to the school giving the children permission to participate. All 18 of the participants who received permission from their parents, took part in the interviews. In the initial planning stages of the study, there were at least 70 participants to sample from at the preschool institution. However, due to COVID-19 many parents did not send their children back to school when the regulations allowed (From discussions with principal of preschool institution). The response rate from parents was therefore relatively high considering these challenges. Just under half of the children enrolled in the preschool participated in the study. It was a diverse, multi-cultural group of participants from varying socio-economic backgrounds. As the medium of instruction at the school was English and Afrikaans, the participants were able to participate in the language of their choice (Afrikaans/English). All the research instruments had been translated into Afrikaans. However, all of those who had consent from their parents to participate in the study were identified as being instructed in English at the school and were therefore interviewed in English. The participants were between the ages of four to six years old. According to the records provided by the school, the majority of the participants (n=11) were five years old with (n=4) participants aged four and (n=3) aged six. Almost an even number of boys and girls participated in this study. (n=8) of the participants were girls and (n=10) of the participants were boys.

4.6.2. Research Setting

Prior to data collection, the researcher, who was the only interviewer, and the principal of the preschool discussed where the best place to conduct the interviews would be. It was decided that the children would be interviewed individually, in a private room that used to be an office on the one side of the preschool. This decreased the chances of COVID-19 transmission and disruption. The room was familiar to the participants as it was adjacent to many of their classes. Before interviews commenced, the researcher took time to set up the research site. After being advised by the principal, many things were removed from the room before the interviews so as to prevent the participants from being distracted. However, there were still toys in the room, such as a toy dragon on the top of a cupboard. There was a crying emoji and some photos of the children and teachers on the wall. While they made the room more familiar and therefore child-friendly, they did influence the interview discussions at certain points which will be discussed in the results section. On the first day the interviewer, while setting up the research space, overheard one of the lessons being given to the three-year-old preschoolers. It was interesting that the activity was an emotion identification activity, showing that the participants would most likely be familiar with these kinds of activities.

4.6.3. Research Procedure

The preschool institution was approached initially in 2019 and the intended research discussed (See Appendix D). After the necessary permission was obtained from the preschool institution (See Appendix E) and the availability of free psychological services was confirmed (See Appendix F), research ethics approval was obtained from the Stellenbosch University Research and Ethics Committee (see Appendix G). The research was then delayed for a year due to the COVID-19 pandemic. The implications of COVID-19 on the research will be discussed in the ethical considerations section (4.9). Once data collection could start,

parents were then contacted by the preschool and signed an informed consent form (see Appendix H) before any research was conducted.

4.6.4. Research Steps

Step 1: Drawing Activity to Establishing Rapport. The participants were interviewed individually, in a separate room, not far away from the other children, for approximately 20 minutes. The time for each interview varied depending on how long the participant wanted to spend doing each activity. The researcher would follow the participants lead with timing and paid close attention to any cues that indicated that they wanted to move on from an activity. The interviews were conducted at a time deemed appropriate by the preschool institution which was usually in the mornings. Staff who knew the participants at the preschool institution introduced the interviewer to the participants. The interviewer would fetch the participant and engaged in informal, participatory discussions while walking the participants to this room. The researcher introduced herself and asked for the participant's name on the way. Once rapport between the interviewer and the participant had been established, verbal assent was obtained from the participants in a child- friendly manner (see Appendix I). In order to facilitate communication, each participant was first asked to draw a person (see Appendix J). Loxton (2009a) found this to be a non-threatening, familiar activity to build rapport with preschoolers, especially when discussing potentially threatening topics such as fear, and in this study, anger and sadness as well. After this activity, the interviewer asked the participants if they would like to look at some drawings of Lea and Leo, the lions. The preschoolers were given the opportunity to discuss Lea and Leo wearing masks to normalise the fact that the interviewer and participants were wearing masks. Although the cartoon lions wearing masks was not a part of the original research design, it was included in order to be child-friendly and contextually appropriate in the time of COVID-19 (See Appendix A: Figure 9.1; 9.2). The illustrator, Meghan Howard, gave permission to create the

illustrations of the lions wearing a mask from the original set (see discussion under ethical considerations 4.9). The interviewer first used the drawing of the cartoon lions wearing a mask to explain and normalise wearing masks in the interview in a developmentally appropriate way. A short discussion about COVID-19 safety was encouraged.

Step 2: Semi-structured Interviews. Once rapport was established, the researcher followed a semi-structured interview using the set of cartoon lion drawings (see Appendix C: Interview Schedule). Using the drawings of Lea and Leo wearing masks, the participants were given the opportunity to choose whether they wanted to look at Lea or Leo. Once they had chosen, they were presented with the A4 laminated picture of Lea or Leo (depending on which one had been chosen) depicting one emotion at a time in a particular order (happiness, anger, fear and sadness). For each of these drawings, the participants were asked questions based on the four research questions below (Appendix C: Interview Schedule).

Research Question 1. What is the status of the emotional vocabulary of a group of South African preschoolers? The first research question was designed to establish what emotion concepts these preschoolers may know. It was also about uncovering their emotional vocabulary. The interviewer asked participants the following question:

How do you think Lea/Leo feels?

If participants needed more prompting, the interviewer would ask them about what they thought had happened to the lion in the drawing.

What happened here?/ What do you think happened to Lea/Leo?

Another alternative question would be to ask participants about the look of the lion.

What does Lea?/Leo look like?

Research Question 2. What features in the drawings help the preschoolers to identify the emotions? The second research question was about the features in the drawings, such as the smile in the “happy” cartoon lion drawing or the “tears” in the sad cartoon lion

drawing. This research question was included so that the interviewer could get an indication of which features the preschoolers might have used to identify the emotions.

The interviewer asked the participants how they knew the lion felt that way.

How do you know Lea/Leo feels that way?

In order to find out from participants where they may have learned this information, the following question was asked:

Where have you heard about this?

If they needed to be prompted, they were asked about who may have told them this or asked where they might have seen it.

Who has told you this? /Where did you see it?

Research Question 3. What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings? The third research question was included to try and find out what stories the preschoolers used to explain the situation or what contextual factors may have caused the lion to feel a particular emotion. The interviewer asked participants why they think the lion may feel that way.

Why do you think Lea/Leo feels that way?

Alternatively, they were asked why they think the lions look the way they do.

Why do you think that happened?/ Why do you think Lea or Leo looks that way?

Research Question 4: What stories do the preschoolers use to describe the emotional situations they have experienced? The last research question relates to the stories the preschoolers may use to describe instances when they have experienced the emotion themselves and what contextual information they may provide.

The interviewer asked whether participants had ever felt the way the lions were feeling or when they may have felt this way.

Have you ever felt the same way? When have you felt this way?

Alternatively, they were asked if this had happened to them.

Has this happened to you?

All of the questions were repeated for each of the four cartoon lion drawings. The alternative questions were provided in an attempt to circumvent some of the vocabulary limitations of preschoolers. They may have had difficulties understanding a question in a particular way and may have needed it to be reframed in order for them to understand it or to facilitate conversation.

Step 3: Favourite Storytelling Component. The interview ended with a story-telling component (see Appendix K) to normalise, if necessary, the participants' feelings. They were asked to tell the researcher their favourite story. This has been an effective method used in previous research within a South African context for preschoolers (Loxton, 2004).

4.7. Limitations of Research Design and Data collection methods

Pollak et al. (2019) urges researchers to move away from isolated, fixed emotion categories such as "happiness", "anger", "fear" and "sadness". They also urge researchers to move away from research with exaggerated facial expressions. This is because research is needed that takes children's natural experiences, social worlds and context into account. Although this study uses facial expressions that are meant to depict these basic emotion categories, the drawings were not meant to be seen as single, discrete emotional states. They should be seen as depicting broad categories of emotions in order to prompt the children to speak about the emotional concepts or feelings that they may be familiar with or that they may understand.

Unfortunately, the free-labelling methodology used could also potentially be seen as a limitation. Free-labelling is used to ensure that children are not simply discriminating between similar features in the pictures or guessing the emotion by a process of elimination. However, as mentioned in the existing literature on emotion recognition, it is possible that using it could measure the children's vocabulary rather than their emotional understanding

(Gross & Ballif, 1991). This is complicated by the fact that the conceptual framework being used states that vocabulary and emotional understanding are inextricably linked (Barrett, 2014; Rosenqvist et al., 2014). The children were given alternative versions of the questions to eliminate some of the issues with vocabulary deficits. Whatever concepts the children provided were analysed and considered important data. It also became clear during the research that even though the participants may not have had the exact vocabulary for certain emotions, they were able to provide variations of the emotions. They also provided evidence of their emotional understanding in the stories they told where they used the vocabulary they were most comfortable with.

The last methodology limitation was due to the fact that the study relied on obtaining qualitative data from preschoolers during a pandemic. The mandatory mask made it difficult to hear the participants at times. This could have influenced the data. For example, there were times that the interviewer would follow up on a comment based on something that was misheard. For example, a participant answered that the lion was “making forward”. The interviewer heard the participant say that they lion had “fallen” and assumed that this meant they were telling a story about the lion falling and perhaps getting hurt. It was also difficult to see any facial expressions, especially when participants were trying to display or imitate the target emotion.

4.8. Data Analysis and Qualitative Rigour: Trustworthiness and Authenticity

The recordings of all the interviews were transcribed and were analysed using qualitative inductive content analysis (Bless et al., 2013). This is the process of organising text into categories of similar meaning (Hsieh & Shannon, 2005). The categories identified in this research consisted of emotion or feeling categories. Emotion categories can be defined as emotional instances, responses and situations that can be combined together as they have common features (Hoemann et al., 2019). The categories could have even included the

discovery of novel emotion or feeling concepts facilitated by the use of free-labelling methodology and a novel, lion cartoon drawing (Pollak et al., 2019).

Elo et al. (2014) have used Guba and Lincoln's (1994) seminal work on trustworthiness and authenticity in order to discuss how we can produce research with rigour at each stage of the qualitative content analysis process. Trustworthiness refers to the reliability of the research processes. Authenticity is about how transparent researchers have been about their own values and assumptions and from within what kind of context the processes and results have emerged (Guba & Lincoln, 1994). The qualitative content analysis process will therefore be explained using examples of how trustworthiness and authenticity were maintained at each of the three stages of analysis: the preparation phase, the organising phase and the reporting phase.

4.8.1. Trustworthiness in the Preparation Phase of Content Analysis

The fact that the researcher was the only interviewer offered the advantage of hearing the vocabulary and stories provided by the participants first-hand. This provided a familiarity with the data when they transcribed the recordings. However, the researcher immersed themselves during the preparation phase of this qualitative content analysis by reading the interview transcripts repeatedly. The researcher decided to further immerse themselves in the data by mapping out the answers to the questions asked about each drawing for each participant using Excel (See Table 1 below for an example of how this was done for one participant).

Table 1

Example of the researcher's immersion in the data for a boy aged-5

Drawing 1	Drawing 2	Drawing 3	Drawing 4
Better How do you know? He is happy How do you know? He wants to wear a mask because the corona is hoing to wear a mask because of the corona virus. He don't want to wear a mask but he want's to wear a mask on his nose. Have you felt happy before? (Participant nods) Can you tell me a story about when you felt happy? My mom did tickle me and then I laugh	Sad How do you know? Because he's angry How do you know? Because he don't like things because he is angry. What do you think happened just before? Before he smiled, and then he's angry. How do you know he's angry? Because he don't like masks anymore. Do you see anything else, what does he look like? Angry and sad Have you ever felt like this? Can you tell me a story when you felt like this before? My mom, my mom, but my grandma did watch his show because he don't want to give the tv. So he don't want to. Why were you angry? Because make there I don't want to watch that tv. I want to watch Sophia.	But he sweats. Because he sweat, sweat, sweat. What does he look like? He is opening his mouth because he do this (opens mouth) What do you think happened? Because coronavirus did come in his nose. He didn't know the coronavirus is coming to her. He is gonna sneeze because the coronavirus. What else do you see in the picture? Because she don't want to wear a mask. Have you felt like Leo feels here? Because I want to go home because my home does not have corona.	Sad How do you know? Because he is crying. Who told you that crying means that he is sad? My mom did told me. What did she say? But he did that in his room. It's pink and orange. He have a shiny bed. Because he want a shiny bed, to lay on it. And then i got another sister. Three sisters and then I got three, I mean I got two brothers, they are big. Their name is called (name). What does he look like? Crying and sad What do you think happened to him? Maybe he's sad because the corona...he want to go away. He want to wear a mask. Can you tell me a story about when you felt sad? Because Im happy outside when I drive my scooter there is no corona outside. When you cold, you gonna be sick. When you sneeze, when its sunny, you can't sneeze because you gonna be warm. Because when it's raining, you stay outside and when it's sunny, you gonna go outside. So my mamma did wash but...I did eat chocolates and chocolates in my teeth and

The answers to each of the research questions were colour coded in the transcripts based on which drawing was being discussed, which contextual cue was used and whether the content applied to the lion or to the participants themselves. This prolonged engagement allowed the researcher to get a very good idea of what the data looked like as a whole (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). A closer reading was then done and codes emerged from the data by conducting an initial analysis. This included making notes of thoughts, impressions and initial concept labels using *ATLAS. ti 9 Windows* (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005).

4.8.2. Authenticity During the Preparation Phase of Content analysis

In order to maintain authenticity, self-reflection was maintained throughout the interview process and preparation phase of content analysis. The contextual values and the worlds of both the participants and the researcher have already been highlighted in the introduction, theoretical framework, participant description and research setting description. The context of the participants was also taken into consideration by using free-labelling methodology,

contextually appropriate data collection methods and semi-structured interviews. This created a rich, qualitative data set with the participants own understandings and perspectives.

Even though the codes emerged from the data, the initial codes formed by the researcher were subjective and dependant on the researcher's context. An example of this initial coding includes the original transcription, the initial codes as well as notes that were made about which assumptions/values of the researcher could be influencing the choice of that code. The following table depicts some examples of this process:

Table 2

Initial coding examples from the qualitative analysis process

Text	Initial Codes	Assumptions/ Values of researcher
She scared anyone and eat everyone.	• Lions eating • Lions are scary	Researcher knows that lions in South Africa are dangerous animals
Sometimes I sometimes cry at home because something has hurt me there at home (story about being angry)	• Apply to self • Angry and sad are undifferentiated. • You cry when you get hurt	Theoretical framework states that negative valanced emotions may be undifferentiated when younger.
Because the corona virus did come in his nose	• Apply to lion • Story about scared • COVID-19 and sickness	The participant did not label the drawing scared but rather pointed out that the lion was sweating. This participant also made reference to the wide open mouth and sneezing. They could have been perceiving sneezing rather than scared.

4.8.3. Trustworthiness in the Organisation Phase of Content Analysis

In the organisation phase, similar codes were clustered into conceptual categories that were grouped into higher order headings with subcategories in a hierarchical structure (Hsieh & Shannon, 2005). In order to maintain trustworthiness, there was prolonged engagement with the data. The categories were constantly refined over a prolonged period of time (Bryman, 2012). Debriefing and discussions with the researcher's supervisor helped to verify that dependable processes were used during the analysis process. A well-published PHD student with child and adolescent research and lecturing experience checked the full data set to see if there was agreement about the data codes and whether they represent the data set as a whole. They had no connection to the research and therefore acted as an objective evaluator of the coding and reporting process. The *ATLAS. ti 9 Windows* project, with no identifiers, as well as the codebook was shared with the PHD student via a secure Microsoft OneDrive folder that only the PHD student and researcher had access to. Once the PHD student had checked to see if they agreed with the coding in the *ATLAS. ti 9 Windows* project, they read through the reported results. They agreed with the data codes and the conceptual maps that had been established by the researcher and created a report (See Appendix L for report).

4.8.4. Authenticity During the Organisation Phase of Content analysis

In order to maintain authenticity, self-reflection was used. These reported conceptual categories are subjective and context dependent (Bryman, 2012). The researcher made notes of how much of the analysis of the conceptual categories could have been shaped by the researchers own values and interpretations (Elo et al., 2014; Guba & Lincoln, 1994; Hsieh & Shannon, 2005). There were some cases where the researcher would assume that the preschooler was telling a story about a particular emotion even though they had not explicitly used the label. The researcher made sure to indicate where these assumptions had been made. The following table depicts examples of this process:

Table 3

Examples of conceptual categories in the organisational phase in the qualitative analysis process

Initial codes	Conceptual Category	Assumption/Values
Lions eating Lions are scary	• Lion features	Researcher assuming that this is how the participants conceptualise a lion.
Angry and sad are undifferentiated. You cry when you get hurt	• Angry • Sad • Physiological state • Action of crying	Researcher is categorising into the basic emotion categories.
Apply to lion Story about scared COVID-19 and sickness	• Overcoming vocabulary limitations • COVID-19 • Being scared	Researcher is categorising based on the benefit of storytelling when there are vocabulary deficits

4.8.5. Trustworthiness in the Reporting Phase of Content analysis

In the last phase of this data analysis, these categories were reported using conceptual systems or a conceptual map. In order to maintain trustworthiness, a rich narrative about the context, the data as well as the participants has been provided in this chapter.

As far as possible, a rich description of the analysis and the coding process has been provided.

4.8.6. Authenticity in the Reporting Phase of Content Analysis

Lastly, authenticity has been maintained by being as fair as possible in the representation of the data. The researcher has tried to provide a balanced reporting of results. The findings have been described in as much detail as possible and all assumptions that were made about the data were highlighted.

Table 4

Examples from the reporting phase of qualitative analysis process

Conceptual Categories	Conceptual Map
Lion features • lions are angry • lions eating	**Lion cartoon drawing: "Lions also get angry and cross"**
Angry and sad • Angry and sad are undifferentiated. • You cry when you get hurt • Physiological state • Action of crying	**Negative Valanced Emotions: "He's getting upset"**
Overcoming vocabulary limitations • COVID-19 • Being scared	**Storytelling: I asked his mommy, why did he shiver?**

4.9. Ethical Considerations

This research adhered to global ethical standards set out in policy guides such as the Singapore Statement on Research Integrity (2010) and regulatory bodies such as the Stellenbosch Research Ethics Committee. In order to contextualise these global and institutional standards, a situated child-centred ethical approach was maintained. A child-

centred, situated, ethical approach was used to make sure that the children's safety, comfort, and any potential power imbalances were considered at all times. Ebrahim (2010) states that adopting a situated ethical approach means that constant flexibility should be maintained when evaluating the context, situational factors and challenges that may be present when working with children.

In keeping with this flexibility, it is important to discuss how young children in South Africa have had their contexts profoundly changed by COVID-19 from the time when this study received ethical approval. In this time, the researcher was not able to conduct the research and commence with data collection in person. Ethical approval was gained in March 2020, a few weeks before the president announced the national lockdown in order to reduce the spread of COVID-19 and to prepare the healthcare system (See Appendix G Project ethics number: 11572). The informed consent forms were ready to be sent to parents and the dates and times for data collection had already been set by the preschool institution. This process was immediately paused and then suspended once lockdown was announced. Lockdown was enforced by the South African government to regulate the movement of South Africans. It required that all South Africans stay at home except for essential purposes. They implemented a level approach where regulations were strictest in the highest level of lockdown (Level 5). Lower levels would ease some restrictions on movement, work and school regulations. However, restrictions such as mask wearing and social distancing remain in place. During the level 5 lockdown, the REC suspended all in-person data collection for the foreseeable future.

Using the principle of situated ethics, the researcher felt that it would not be ethical to adapt the study to be online (Ebrahim, 2010). Guidelines for working with preschoolers in a child-friendly and age-appropriate way in an online format could not be found. It would also not be possible to use this format without the preschooler having some sort of supervision.

Although this was one of the options considered, it was not economically or practically feasible. It might have also compromised the original conception of the study. After a long delay and several months of the REC suspension on in-person data collection, an extension was requested from the preschool institution (See Appendix M). Once this extension was received, the researcher applied for an extension from the REC for the ethical approval period (See Appendix N).

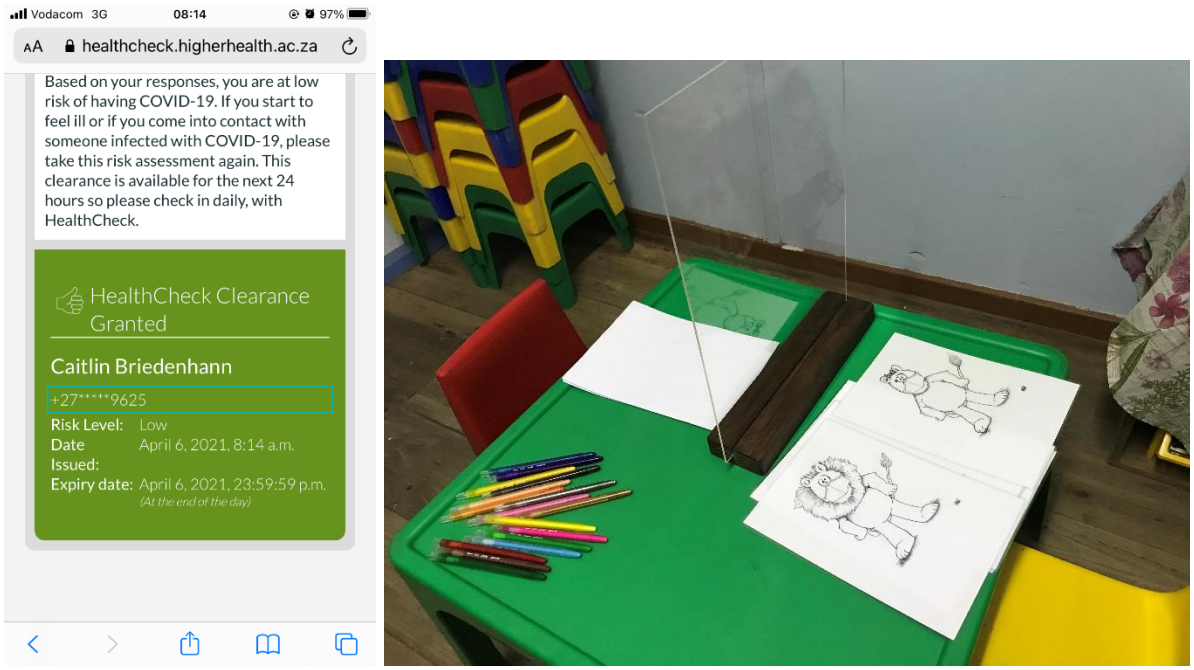
In person data collection was eventually possible a year later when COVID-19 cases were at their lowest in South Africa and the REC suspension was no longer in place. However, doing in-person data collection while there were still COVID-19 cases increased the risks of this research. These risks included the possibility of spreading the virus to the participants or the possibility of the interviewer contracting the virus from the participants. The researcher applied for amendments to the study taking these risks into account (See Appendix O). It was important to adapt procedures to keep the well-being of the children and South Africans in mind. Therefore, it was vitally important that the researcher follow the World Health Organization's (2020) advice on how to reduce the spread of the Coronavirus. To eliminate any possibility of spreading the virus, the researcher isolated for 10 days before the interviews, during the interviews, and for 10 days after the interviews. The researcher also decided to do a COVID-19 test after the interviews and isolate before seeing their family members again. Social distancing was maintained by always keeping a distance of at least two metres. Both the participants and the interviewer wore masks at all times and a screen divider between participants and the researcher was also used as a secondary prevention method. The researcher would also complete a higher health check daily before entering the premises. The preschool institution staff members would take the researcher’s temperature and do their own health screening.

Lastly, strict hygiene standards were maintained. An alcohol-based hand sanitizer was used to disinfect the hands of participants and the interviewer. This sanitizer was kept out of reach of the children. Any resources, such as pens and paper, used during the interview were sanitized before and after use (See Figure 2 for example of these measures).

Dalton et al. (2020) and Jiao et al. (2020) advise that increased developmentally appropriate communication around the virus may mitigate some of the anxiety young children may experience. Therefore, the measures to reduce the spread of the virus, that have been listed above, were explained to the children in a developmentally appropriate way by using a drawing of the cartoon lion wearing a mask. This was in the hopes that it would decrease any anxiety that these measures may have caused during the interview. It is interesting to note that participants would often pull their masks up over their noses unprompted if they were only covering the mouth beforehand when they saw the set of cartoon lion drawings with the mask covering the nose. This highlights the importance of developmentally appropriate communication and shows that it was a successful way of bringing the COVID-19 guidelines to their attention again. The image of the lion wearing the mask prompted participants to follow COVID-19 guidelines without the researcher having to instruct the participants in any way that may have damaged rapport. Ethical approval for the risk mitigation strategy and in person data collection was approved and data collection commenced shortly after (Please see Appendix P).

Figure 2

Laminated cartoon lion drawings (with masks), screen divider and health check.



In keeping with the guidance of the Research Ethics Committee of Stellenbosch University, confidentiality and anonymity was maintained by making sure that the information provided by the parents and the participants remained private. All the data was kept on a password-protected hard drive and backed up on One Drive with a secure password. COVID-19 meant that using secure methods such as sharing documents over One Drive became particularly important when supervision meetings and code checking could not be done in person.

Any paper data, such a document with the participants names, age and gender, was locked away in a filing cabinet that only the researcher had access to. This list was no longer needed after participant's age and gender had been coded. It was shredded to maintain the confidentiality of the participants. The names of the participants, parents and the name of the

preschool institution does not appear in the thesis and will not appear in any publications that may come from this thesis. The content of the interviews has been discussed in terms of participant code, age and gender and any identifiers such as names were codified immediately after the interviews. This means that the participants, parents and preschool institution will remain anonymous. Any documents shared during Supervision or with the PHD student were free from any identifiers. The documents were also only shared over the secure password protected One Drive system.

The parents of all participants were given a consent form by the preschool institution explaining the study in clear and simple language. It was made clear to the parents that they would be able to take the children out of the process at any time. It was encouraging to note that the parents engaged with the consent form and felt that they were able to contact the researchers. The consent form encouraged the parents to contact the researcher and their supervisor at any time if they had any questions and it provided these contact details. One of the parents contacted the researcher and their supervisor to ask for the ethics number of the study. The ethical approval notice document was immediately sent through to this parent and they were encouraged to contact the researcher or her supervisor again if they required any further clarification. The parent then phoned the researcher's supervisor to discuss the request for the ethics number. After a discussion between the researcher and their supervisor, it was decided that a letter should be sent out to all parents with the ethical approval number. This letter also assured the parents that the participants were likely to enjoy the activity and that appropriate measures would be put into place to mitigate the risk of spreading COVID-19 (See Appendix Q). The parent who contacted the researcher and her supervisor, was appreciative of this letter, allowed their child to participate and wished the researcher and her supervisor all the best for the study. Following the study and a discussion with the principal of the preschool institution, the researcher and her supervisor felt that it would be important

to include these parents in the research process. The researcher and principal discussed how important it would be to have an event at the preschool in order for the parents to hear some of the general, anonymous findings. An opportunity like this would allow them a chance to provide any comment and engage with the findings of this thesis before anything is published. This is particularly important considering a recent a recent controversial sports science study that was published using participants from the Stellenbosch Community. It caused outrage because it essentialised and did not problematise race (Hendricks et al., 2019). Although race is not a construct used in this study, there is still a lesson to be learnt about not conducting research "on" people and being able to share the findings with them. The researcher has checked with REC admin and such an event would be in line with ethical procedures provided that this information be included in the final ethical report. A thank you note to parents as well as an invitation to the event will be sent out once the risk of spreading COVID-19 is low and regulations allow.

This research provided an important lesson in transparency and vulnerable populations. More than just adhering to the standard ethical principles is needed and it is important to be flexible and to "go beyond" these principles when researching youth in South Africa (Swartz, 2011). Parents are rightfully protective over the well-being of their children and childhood developmental researchers need to take special care to protect the vulnerable from harm, to ensure confidentiality and to respect diversity while also being transparent and open about findings (Gilmore et al., 2020). It is ethical to share the research findings with the parents and by proxy the participants (Hintz & Dean, 2020).

The participants were also asked to provide verbal assent in a way that they could understand. Recordings were explained by showing the participants how a recording works. The participants were also informed that they could end the interview at any time and that they did not have to respond if they did not want to do so (see Appendix I). Ebrahim (2010)

argues that using a situated ethics approach requires an ongoing process of informed consent. Taking this into account, the researcher had to be sensitive to facial expressions, posture and behaviour that may have indicated an unwillingness to participate. If the interviewer decided that children seemed uncomfortable during the interview, reassurance was given to them that they did not have to answer questions if they did not want to do so and they were reminded that they could leave at any time. In one instance, a participant asked if they could go out and play with their friends halfway through the interview and the interviewer allowed them to do that. Another participant appeared visibly upset by something that had happened in the classroom just before the interview. In this case the interviewer decided to complete the interview at a later stage and found that the participant was livelier and more engaged in the process when commencing with the interview process.

If the participants showed any signs of distress during the interview, the interview would have been terminated immediately and the researcher's supervisor, who was contactable during the interviews, would have been informed. Even though it was very unlikely, there was a contingency plan in place if any of the children experienced any distress after the interview. The preschool institution and parents were informed before the interviews took place that if they noticed any distress afterwards; they should report it to the researcher or her supervisor. Referrals could be made to a Community Psychology Clinic, a clinic within walking distance from the preschool institution (See Appendix F).

However, the participants were more likely to enjoy and benefit from the activity as it was designed in a child-friendly way to get them to talk about emotions. It is worth highlighting that no participant was identified as exhibiting distress that would warrant referral, nor did any parent, school principal, or teacher indicate the need for a referral. Ebrahim (2010) claims that researchers should engage in active listening and children should engage in active participation by using stories and drawings. In cases where participants were

initially hesitant about their drawing abilities, they were put at ease by the researcher. In one case, where a participant expressed their concern about not being able to draw, the interviewer decided to move on from the drawing component as enough rapport had been established at that stage. In some cases where the participants were hesitant about drawing a person, the researcher assured them that they could draw whatever they wanted to. It was important to be flexible and to be led by the participants in this regard rather than insisting that they draw a person or that they draw at all. The aim of this activity was not for them to draw a person but that rapport was established. The research procedure was designed and implemented keeping the active listening approach and the active participation of preschoolers in mind (Ebrahim, 2010). The insights of Loxton (2009a, 2009b) on child-friendly methods for South African preschoolers was also kept in mind at all times.

4.10. Chapter Summary

In this chapter the researcher discussed how the research was designed to be child-friendly, to disable power relations and to be as developmentally appropriate as possible. This was done by using qualitative, context-dependant semi-structured interviews, with open-ended questions in order for the children to provide their own understandings of emotions. The data collection instrument was described as age appropriate, child-friendly and relevant to preschoolers in a South African context. The research participants, setting, procedures and steps were outlined. They were designed and set up in a way that was suitable for answering the research questions while ensuring a safe, non-threatening space for children to engage in the research. The limitations of these methods were also discussed. The data analysis process was described as transparently as possible with examples of initial coding, category coding and final conceptual maps. Lastly, ethical considerations were described.

Chapter 5
Findings

5.1. Introduction to Chapter

In this chapter the findings will be presented using conceptual maps. Elo and Kyngäs (2008) and Hsieh and Shannon (2005) explain that inductive content analysis requires reporting conceptual categories in the form of conceptual maps. These conceptual maps can include concepts made up of emotion instances, labels and contextual information. Seven conceptual maps were created and grouped together under three broad headings, namely: conceptualising drawings, pictures, and lions; conceptualising emotions and conceptualising stories.

Conceptualising drawings, pictures and lions includes two conceptual maps, one about *1. Drawing/Pictures* and a second one that provides important insights into *2. Lions as wild animals.* This is followed by a discussion based on the main component of the research, **conceptualising emotions,** which is divided into four conceptual maps including: *3. Happy; 4. Negative valanced feelings; 5. Scared and 7. Contextual cues.* The final stage of the research design includes insights from how children **conceptualise stories** and describes some of the prominent stories and fables that they hear at school and at home. Both the literature review and theoretical framework have emphasised the importance of context in the development of emotion in childhood and so rich descriptions of the context of these findings will be provided (Barrett, 2014; Stallard, 2005; Widen & Russell, 2010).

5.2. Conceptualising Drawings, Pictures and Lions

5.2.1. Conceptual map 1 (Drawing): "I'm looking on the ground because I can see a flower"

The first conceptual map is one that encapsulates concepts that were combined into groups about the participants' drawings created as part of the building rapport activity (See section

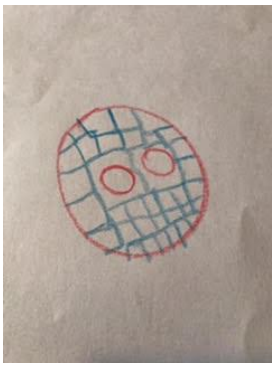
4.6.4.1) and concepts of pictures in general. Conceptual categories included who or what was likely to be drawn and how the children perceived drawing and looking at pictures. When they did draw people, they mostly chose to draw their mothers, fathers and other family members. Two participants wanted to draw superheroes and one drew Spiderman. Participants who felt that they were unable to or did not want to draw a person decided to draw wild animals. Two of them drew tigers, one drew a lion, and another participant chose to draw a fantasy animal, a unicorn. Participants also drew objects that made them feel happy such as flowers, ice-creams, and aeroplanes.

When looking at the cartoon lion drawings, two participants referred to the fact that they were looking at pictures. One participant stated that the lion in the drawing was a "picture so he doesn't cough". Another participant mentioned that the lion was "made with a printer". The rest of the participants relied on storytelling and the characters that were being shown. The drawings provide insights into some concepts that are important and relevant to preschoolers and the examples can be seen in Figure 3 below.

Figure 3

Participants' colourful drawings

1. Lion drawn by 5-year-old girl



2. Spiderman drawn by 5 year old boy

3. Daddy with bridge on shirt drawn by 6-year-old boy

4. Aeroplane by 6-year-old boy

5. Rainbow dress and Ice-cream by 5-year-old girl

6. Flower by a 6-year old-girl

7. Person picking flower drawn by 5-year-old girl

8. Multiple Family members drawn by 5-year-old boy

5.2.2. Conceptual map 2 (Lion Cartoon Drawing): "Lions also get angry and cross"

The conceptual map called "Lion" was created from the many insights gained from the participants' discussions about the concepts related to the lion pictures. These concepts originated when the participants were asked to choose between Leo and Lea. However, the participants would also choose to tell stories about the lions during the semi-structured interview.

What the Lions Looked Like to the Participants. At least three of the 18 participants felt like the target drawing Lea "looks like a tiger" while Leo was deemed to be a lion because "lions have hair around them". When one participant was asked what Lea looked like, they responded that Lea looked "like a monster" when looking at the "angry"

target drawing. Another participant said that Lea's eyes looked "spooky". and another felt that Lea looked like an "evil lion". However, many participants also mentioned that the lions were "fluffy", "soft" and "furry". Therefore, although the participants used concepts that may indicate fear, they did not display signs that they actually felt the drawings were scary but were rather simply pointing out learned concepts about lions.

Lions Eat Animals and People. Participants would also mention that lions eat people. One participant mentioned that "Lions can eat mouses and a lot of humans" and another mentioned in a story that the lion "was trying to eat me". Another participant was asked about why the lion was mad and they answered that it was because "They did want to eat us". Participants deemed lions to be scary because of this. This can be illustrated by one participant who said; "She scared anyone and eat everyone." Another participant told multiple stories about the lion fighting a hyena. Overall, the concept of "Lion" was connected to being scary, angry and wanting to fight. However, this did not seem to contribute to any negative feelings towards lions but rather seemed to indicate concepts that the participants associated with lions.

How did they Know what Lea and Leo Were Feeling? Despite describing the lion as being scary, angry and wanting to fight, the participants still enjoyed the set of cartoon lion drawings. They offered up facts that they had learned about lions. One participant mentioned that "Lions can run a little bit fast. A cheetah can run super fast". Another participant wanted to draw the lion. Many participants also felt immediately drawn to tell stories about the lions when asked how they knew that they were feeling a certain way. 24 out of the 72 possible responses for the question "How do you know what Lea/Leo is feeling?" were stories with descriptions about what could have happened to the lion character to make them feel a certain way rather than descriptions of the features of the drawing.

Applying to the Cartoon Lion Drawings. The stories provided for the set of cartoon lion drawings used to explain the emotion being depicted were very similar to the stories that the participants provided for their own experiences of that emotion. One participant offered up a story that was more closely related to an animal than to a human when he mentioned that "the hyena was biting his elbow". In some cases, the participants would more easily offer stories about when they felt a certain way than when trying to apply the feelings to the lions. The most stories about emotional situations were applied to both lions and the participants for the "sad" target emotion.

Lion Gender. If one is to interpret that Lea is the girl lion while Leo is the boy lion, most children chose the lion that corresponded with their school reported gender. However, two boys chose Lea and two girls chose Leo. One of the male participants felt that Leo was the "better" one. When prompted, he mentioned that it is because he is a boy and so he will choose the boy. Another participant chose Leo, not because of his perceived gender but because Leo looked like a lion to him while Lea looked like a tiger. One of the male participants chose Lea because she looked like a tiger and his favourite animal was a tiger.

One participant mentioned that Leo looked like a "crying" girl. This same participant did not want to admit to ever having cried before. Another participant mentioned that the "scared" target drawing looked like a baby perhaps suggesting that only babies get scared.

5.3. Conceptualising Emotion

Participants were able to identify the target drawing of the emotion in most cases when asked. Before coding any data, the researcher used *ATLAS. ti 9 Windows* to create a word cloud to get an overall idea of what vocabulary the preschoolers were using and which pertinent concepts were used during the interviews (Please see figure 4).

Figure 4

Word cloud of data set

In a word cloud, the size of the word is determined by the number of times the word is used. From the above, it became clear that “angry” was the concept used the most as it is visually the most prominent, followed by “happy” , “sad” and “scared”.

Below in Table 5 is a breakdown of the emotions that were identified for each target drawing. Due to the free-labelling methodology, many variants of the target emotions were used, depending on the vocabulary participants were comfortable using or what they were used to hearing.

Table 5

Emotions and their variants listed for each target drawing by gender and age

Gender	Age	Drawing 1	Drawing 2	Drawing 3	Drawing 4
G	5	Happy (no probing)	Angry (no probing)	Scared (no probing)	Sad
B	5	Happy (no probing)	Angry (no probing) He's mad	I think he's feeling like a baby. Maybe he's scared	Nope I think that's his tail stuck in his eye. Not happy Hurt (with probing)
B	5	Happy (no probing)	Angry (No probing)	No answer he's nervous (With probing)	Sad (no probing)
B	4	Sick She feels hungry	Mad (no prompting)	Hot (no probing)	She is holding his eyes with his tail. Shw want to scratch herself at his eyes.
B	5	Better He is happy	Sad Because he's angry Angry and sad	But he sweats.	Sad
G	5	He is feeling COVID That mean's he's happy (with probing)	Leo feels angry	He's shivering he can't keep his cry's in. He looks scared (with probing)	This is a difficult one he's on shock (electric)
B	5	Better Hungry	Angry		
B	4	Better	Angry	He is making like this (pulling his mouth open wide) He is still feeling sick.	Not better. He look like sad.
G	5	Nice	Sad	Cold (after a long pause)	Crying She's feeling sad (after probing)
B	6	Happy	Angry (said in an angry tone).	Worried	She is crying Sad (with probing
G	5	Good She's happy	mad Because she's angry.	I don't know	Maybe crying Sad (with probing)
B	5	I think he is supposed to wear a mask	Angry	No question yet: Look he's sad!	He is crying Soft
B	4	Happy	Angry it made me feel funny.	I don't know It looks like she is scared.	Sad
G	5	He's sick.	Excitedly says Angry Because he is sad		He's crying Angry
B	4	He feels like fluff...and he is yellow. Uh ticklish	Angry (In an angry voice) His cross, He's getting upset.	Scared (no probing)	Scared
G	5	She looks like a tiger. She feels furry also. She feels soft. I do not know, A furry pillow She's feeing happy	Angry (in an angry voice) mad.	Worried	She feels sad
G	6	She feels happy	Angry	She feel cold.	She feels sad
G	6	She feels fluffy also.	Mad	I think she's sweating She's surprised	Crying Sad

These emotions are discussed in the conceptual maps described below and discussed in terms of: the conceptual cues identified; any misinterpretations of these cues; the emotion identified; and emotions mentioned outside of the target emotion. The stories that participants applied to themselves and to the lions are also described in the conceptual maps.

5.3.1. Conceptual map 3 (Happy): "Because I see her smile"

The emotion "Happy" was surprisingly not identified initially by many of the participants. Many variants of "happy" were used such as "good" and "fine" and "better" The participants seemed to find it difficult to understand what the researcher was asking when asked what the lion was feeling. They would sometimes guess what was being asked by describing features

of the lion such as “She feels fluffy”, “He feels like fluff”, relying on the literal interpretation of feel in these cases.

The “happy” target drawing came directly after showing the participants the lions wearing masks and the question about why they thought the lion was wearing a mask. Just under half of the participants interpreted the question about what the lion is feeling in the “happy” target drawing by using the previous mask cue. They would guess what the “happy” lion was feeling based on the fact that the lion was no longer wearing a mask. The participants would suggest that perhaps the lion was feeling “better” or “fine”. When prompted to explain how they knew this, 12 out of the 18 participants mentioned that Lea/Leo was “happy” “better” or “fine” because the lion was smiling. This suggests that even though they used the masks as a cue, they still understood that the concept of smiling meant that the lion felt “good” in some way.

Participants would often tell stories about “happy” and “unhappy” in conjunction. For example, when describing when they may have felt happy before, one participant explained that they broke all of their toy cars because their dad’s car broke. When prompted to explain why this made them feel happy, they mentioned that their mom bought them a new toy car and presents for their birthday. Another participant explained that they did not like it when their parents were at work. When prompted to carry on with the story, they eventually said that they then went with their parents to work which could signify a happy moment.

The answers for why the lion may be feeling a certain way and when the participant may have felt that way seemed to be very similar. The main stories that participants would apply to both the lion and themselves included:

- *Being around friends and playing*
- *Spending time with parents*
- *Getting presents on their birthday*

Some of the stories that the participants offered did not apply to happiness:

- *The lion wants to wear a mask*
- *The lion got lost*

One story related to the concept of being sick, cued by the mask drawings. The participant spoke about feeling "better" after eating soup. This could point to physiological feelings associated with feeling "better" when sick. Two of the participants mentioned other emotions when talking about emotions in general or happy moments. One participant mentioned "excited", and one participant mentioned being proud of herself when her sister was born.

5.3.2. Conceptual map 4 (Negative Valanced Emotions): "He's getting upset"

Angry: "He's mad. He's cross". "Angry" was the most accurately identified emotion. The youngest participants all used the label angry for the target "angry" drawing. One participant identified "sad" instead of "angry" and another participant identified both "sad" and "angry". When a participant was asked how they know the lion feels angry, they answered "because he is sad". Another participant was asked how they know that the lion feels sad, they answered "because he is angry." Participants would also incorporate "sad" into their answer when discussing the drawing. One participant was able to identify all the features that showed them that the lion was angry but still explained that the lion was sad. This participant said, "because she has her eyebrows like so, she's crossing her arms and she looks unhappy." Participants would sometimes offer variants for the word "angry" including the words; "upset" "mad" "cross" "unhappy" "not happy". While "mad" and "cross" are very closely and uniquely related to "angry", "upset" could be used to identify both "sad" and "angry". "Unhappy" and "not happy" are more closely related to "sad".

This confusion between "angry" and "sad" was not only seen with emotion vocabulary but with the stories described when applied to the lion and self. Some of the

stories identified could clearly be identified as anger. However, some of the stories were more ambiguous and some were clearly related to being sad.

Some of the stories that seemed to clearly fall into the category of "angry" included:

- *When someone took the participant's possessions*
- *When a participant's friend broke their toy*
- *Being angry with someone*

However, the following stories are not easily identifiable as "angry" and could probably be more closely related to "upset" or are ambiguous in terms of "angry" or "sad". These included stories such as:

- *When someone is being rude*
- *When someone does something wrong to them*
- *When parents/friends do not want to play with them*

And then some stories that more clearly relate to "sad" according to the researcher:

- *Because no one likes her or something*
- *Getting hurt*
- *Having your heart broken*

Hurt: "She's crying". "Sad" was only initially identified three times by participants. Most of the time, participants would rather identify that the lion was "crying" when asked how they felt. Some of the participants would identify "watering eyes" and "tears". When asked what this meant, they would say it meant the lion was crying or sad. One of the participants noticed a crying emoji face on the wall and mentioned: "Look there…a crying face". After probing what this may mean, he mentioned that it meant "sad". This was true in most of the cases where participants were probed about what crying meant. They would say it

meant the lion was “sad” or “hurt”. In fact, many of the stories to do with “sad” were based on being physically hurt. These included stories such as:

- *Falling/getting hurt*
- *Having a sore head/being sick*
- *Hurting body parts such as fingers, knees and hands.*

One participant’s answer is ambiguous in terms of being related to physical or emotional hurt. They mentioned that maybe “someone push her down”. What is interesting to note is that in many of these stories where physical hurt was mentioned, it was related to incidents where children are likely to cry.

Some of the stories were extremely similar to the types of stories that were given for “angry”, including some of the stories already described as being more closely related to “angry” such as when a friend breaks your toy.

- *Wanting Corona to go away*
- *More than one participant spoke about not being liked/having friends*
- *Someone not being nice to them*
- *More than one participant spoke about not getting presents/wanted things or not being sung to on birthday*
- *Friend broke toy*
- *Having a broken heart*
- *Losing family members*

Around six of the stories used for these negative valanced emotions were clearly influenced by the masked lion. Having COVID was very closely related to the participants’ perceptions of what it is like to be sick with flu or a cold. These lions seemed to be perceived as “not better” and therefore upset. The stories included:

- *Not liking masks anymore*
- *Being angry because the lion doesn't want medicine anymore*
- *Being angry because he is feeling sick*
- *Being angry because it is Corona*
- *Eyes and nose hurting because the lion is sick*
- *Being sad because the lion wants Corona to go away.*
- *Corona is not outside*

5.3.3. Conceptual map 5 (Scared): "She's shivering, He's sweating"

Participants identified an open mouth, shivering and the sweating in the "scared" target drawing. In two cases participants mentioned the knees/legs of the lion drawing. The droplets of water that were intended to be sweat droplets were identified as tears in one instance and bees going into the lion's ears in another instance. In many cases, these cues were confusing to the participant or they were misinterpreted. One participant said, "I don't know why is her legs, why she standing like that" or another participant mentioned "when someone shakes, that mean they feeling cold". In fact many of the misinterpretations revolved around temperature. Participants would label the lion as hot or cold depending on whether they had seen the water droplets and interpreted it as sweat or seen the lines and interpreted it as shivering. Participants who understood that "scared means shivering" would correctly identify that the lion was scared. One participant seemed to interpret the drawing as "scared" but still used the shivering as a temperature cue when he mentioned that, "maybe he is scared of the cold water". The open mouth was probably the least misinterpreted feature but was not always enough to help the participant to interpret that the drawing was portraying "scared" and in two cases, could have been the cue used to identify that the lion was "surprised".

Participants would identify variants of "scared" from the drawing including "worried", "nervous" and "surprised". While "worried" and "nervous" could be considered as variants of the concept of "scared", the stories the participants relayed showed that these had

slightly different meanings than what you would consider as typically being “scared”. One participant felt that he would be nervous if he had to do “different” things. Another participant said they were worried when their ball was lost. One participant said they were worried when they had to go to a new place. “Surprised” is usually depicted as a separate emotion category to “scared”. In fact, the participant who identified “surprised” interpreted it as a positive-valanced emotion when they mentioned that they were surprised when their parents bought them everything that they asked them to. This shows that they understood the concept of surprised but that they had misinterpreted some of the cues in the drawings.

Participants also mentioned being “afraid” or “frightened” and relayed stories of being scared. However, these were often mentioned outside of the “scared” target drawing. These stories also portrayed typical scary scenarios with mention of “monsters” and the dark and getting or giving someone a fright etc. In fact, “scared” and “happy” were the emotion concepts most often mentioned outside of their target drawings even though they were the most misinterpreted drawings. Some of the stories that applied to being scared included:

- *More than one participant spoke about being worried about new things or situations.*
- *Getting shouted at*
- *Getting hurt*
- *Wanting to go home because of Corona*
- *Being scared of something*
- *Seeing a monster*
- *Being surprised by nice things*
- *Worried about losing toy*

It is quite interesting that the participants were more likely to ascribe the typical notions of being “scared” to the lion, such as being scared of a monster. On the other hand, they seemed

to ascribe stories about being nervous and worried to themselves in more realistic scenario descriptions.

5.3.4. Conceptual map 6 (Contextual cues): "He is angry on his teeth and arms"

Mouth as Context. While participants would often mention that the lion has a "happy face" or a "sad face" or an "angry face", many of the participants mentioned the mouth when asked to explain how they knew what the lion was feeling. Participants would struggle to describe the angry mouth but would say "I see his mouth angry". However, when prompted, they would also talk about his eyebrows, teeth and crossed arms. The smiling was the most described feature of the happy lion, with participants explaining the difference between a happy mouth and a sad mouth. One participant explained; "my mommy told me that a smile means happy and a downward turned face means sad". What is interesting is that the downward turned mouth was not often mentioned when participants were shown the "sad" drawing. In this case, a sad face was usually identified by tears or crying. For the scared lion picture, most participants described seeing the sweat or the shivering but if they did not know how to explain this, they would state that they "see open mouth".

Body/Voice and Actions as Context. From the interactions, it seemed as though it was not necessarily the mouth or face that was the clear contextual cue that participants used to identify what the lion was feeling. However, the cue mentioned first was usually the one that was the easiest feature to identify or explain or the one that they were most certain of. It was clear, for example, that the participants would see all the angry features but would not know how to explain them. They would either start describing the lion's face or they would use gestures to explain how they knew he was angry, not having the vocabulary to explain it. One participant said "He's angry" and crossed his arms. Another participant balled his fists up and made his eyes big. When discussing the "scared" target picture, one participant mentioned that they knew the lion was worried "because I see her sweating". When

prompted, the participant trying to explain the contextual cues that they used to identify "scared" mentioned that "her hands are together like so and her feet are like so" referring to the depiction of weak knees, straight arms and flexed hands. Many participants misinterpreted the tail of the lion, thinking it was a "mop" or that it was a "candle" or that it was poking the lion in the eye, rather than wiping the tears away. There were also some contextual cues mentioned that would be difficult to depict in a picture including "running" "yelling" "laughing".

Sources of Context. The researcher would ask the participants where they had heard or who had told them about the contextual cue before. Most of the time, they answered that they heard it from their parents. Some participants would explain exactly what their parents had said. For example, one participant mentioned that her dad taught her that people cry when someone breaks their heart. Another participant claimed that her mom taught her that a smile means happy and a downward turned face means sad. It is unlikely that this is a clear indication of where they heard or had learned this information. To say that they heard it from their "mommy" or "daddy" seemed to be the easiest response for the participants. Other participants did not know where they had heard it before or felt that they "just knew". It is more likely that they learned these contextual cues from multiple sources and from a young age. A participant explained that he learned about the feelings from a movie and seemed to be describing the movie 'Inside Out' which is a popular movie about emotions.

Mask as Context. The progression from the mask drawing to the non-mask drawing seemed to be a more important contextual cue for participants than the contextual cue of smiling. It is likely that a combination of both the smile and the fact that the lion was no longer wearing the mask was used to determine what was being depicted. It seemed to prime at least six of the 18 participants for the drawings that came next. The participants would use the lion wearing a mask drawing when trying to think of stories. However, they also used it

as a cue for when they were uncertain about what they should be telling the researcher. The participants would use the pictures of the lions wearing masks to understand the next picture which was meant to depict “happy”. When participants were asked why the lions were wearing masks they all knew immediately that it was because of COVID-19. What is interesting is that the mask signified not only COVID-19 to them but also the general idea of illness and being sick.

Progression as context. Even though the participants were very likely to use the mask as a cue to explain the “happy” target drawing, they had no problem identifying “angry” and seemed to understand from then on that they were being asked to identify emotions. Some participants made mention of the progression of the drawings. One participant mentioned that they knew the lion was angry because: “before he smiled, now he’s angry”. There were also two incidents where the participant would make a guess about what picture came next. One participant, after identifying “happy” and “angry” correctly, excitedly identified “sad” as what would come next even though the next drawing was “scared”. When asked how they knew, they explained that “first the lion was angry and now the lion was like this”. There was another participant that asked the researcher if there was also a picture depicting “sad”. After asking if there was also a “sad” picture, the participant explained that they could see through the “scared” picture. It was not possible to see through the pictures and so the participant was most likely guessing that there would be a picture of “sad” because she could see there was another picture. Another participant, when reflecting on the activities, stated that the lion “was angry, happy and sad.” When she described the progression of the drawings she excluded “scared” even though she had labelled “scared” correctly.

5.4. Conceptualising Stories

5.4.1. Conceptual map 7 (Storytelling): "I asked his mommy, why did he shiver?"

Fantasy stories/fables vs Personal Stories. In the storytelling component of the research the participants would enjoy telling the stories that had been read to them. They retold the stories read to them in school or at home such as "The three little pigs" "Goldilocks". However, the stories also included TV shows that they had watched such as "Peppa Pig". The participants not only enjoyed telling stories in the storytelling component that was meant to neutralise any negative feelings, but they enjoyed telling stories using the lion characters. Only two of the stories about the lions seemed to be fantasy while the rest seemed to be closely related to the participants own experiences.

Overcoming vocabulary limitations through storytelling. Even if the participants did not use the correct vocabulary to explain an emotion, it seems possible that they may still have understood the emotion. One participant did not know what the "scared" picture depicted. However, when asked to explain how they knew what the lion was feeling, they said "maybe she fall down because something is beautiful." Although it is not clear, this could be evidence that the participant identified that the drawing was depicting "surprise" but did not have the vocabulary to express this. One participant identified the "scared" target drawing as "sad". However, when telling a story about the lion they explained; "then suddenly he ran….no don't fight me". This could show that the participant actually interpreted the drawing to be depicting "scared". This was true of another participant who did not identify "scared" but told a story that could imply that they understood that the picture depicted scared. They said that the lion looked the way they did "because coronavirus did come in his nose. He didn't know the coronavirus is coming to her. He is gonna sneeze because the coronavirus".

Sometimes, a participant did not have the vocabulary to describe the emotion but tried to show the emotion in the story by using certain vocal tones. One participant, when trying to explain "angry" told a story about a tiger and lion. They explained in an angry tone; "then I am gonna…Leaving you there lion!". Many participants also used an aggressive vocal tone, decisively saying that the lion was angry.

The contextual cues needed to create the stories. Participants also used contextual cues to create their stories, such as the pictures on the wall or the dragon in the room. A few participants remembered being in the photos that were on the wall and would tell stories about their friends and teachers in the pictures. One participant spoke about the dragon hurting people with his fire. Some participants would create a story using all four emotions. In some cases, the story centred around a mask, or being sick or having people to play with.

5.5. Chapter Summary

In this chapter, the finding that originated from the participants' data were discussed according to seven conceptual maps. They were discussed under the headings "conceptualising drawings, pictures and lions" "conceptualising emotions" and "conceptualising stories". Under *conceptualising drawings, pictures and lions*, the age- and context relevant aspects of the preschoolers' worlds were discussed. Under conceptualising emotions, conceptual maps of "Happy", "Negative Valanced Emotions" "Scared" and "Contextual cues" were discussed. The final conceptual map related to the concept of "Storytelling" and the important role that storytelling played in elucidating information. COVID-19 and how this impacted the data was discussed for each of these conceptual maps.

Chapter 6:
Discussion

6.1. Introduction to Chapter

In this chapter, the findings initially reported using conceptual maps in Chapter five, will be discussed in this chapter in terms of the four research questions of this study. The Conceptual Act Theory (Barrett, 2014) will be used to discuss concepts that became apparent from the conceptual maps set out in Chapter five. The insights provided were used to answer the four research questions of this study and contribute towards the aim of exploring the emotional vocabulary and the stories about emotional situations provided by a group of preschoolers from a preschool in a mixed-income and diverse community of the Western Cape in South Africa. The research question **1) "What is the status of the emotional vocabulary of a group of South African" preschoolers?** will be explored by looking at the following; *early emerging emotion concepts, mental states vs physical states, the benefits of exploration vs correct or incorrect responses and lastly, the development of differentiated emotions*. **2)** "**What features in the drawings help the preschoolers to identify the emotions?"** will be explored by looking at; *the angry lion in context, the sick lion in context, activating conceptual knowledge and lastly, how is the conceptual knowledge developed?* Finally, **3) "What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings?" and 4) "What stories do the preschoolers use to describe the emotional situations they have experienced?"** will be combined into a section on storytelling and the narrative preference of preschoolers. This section will discuss the *narrative structure of emotions, narratives in a pandemic and the benefits of storytelling*.

6.2. Research Question 1: What is the Status of the Emotional Vocabulary of a Group of South African Preschoolers?

6.2.1. Early Emerging Emotion Concepts

In order to understand what conceptual knowledge a group of preschoolers with diverse backgrounds might rely on, this study set out to explore the emotional vocabulary used by the participants while discussing the lion cartoon drawings. According to the Conceptual Act Theory (Barrett, 2014), the participants would have become increasingly adept at recognising emotions of others in their culture as their emotional vocabulary and emotion concepts improved.

According to a review by Gross and Ballif (1991) and a study by Widen and Russell (2010), the order in which emotion labels are produced follows a distinct pattern. Happiness is usually the most accurately identified emotion followed by sadness, anger, fear and surprise. However, in the present study "angry" was the response provided most often by the participants. Other variants used to label the "angry" target drawing included "cross", "mad" and "upset". It is interesting to note that the word "cross" is not used as a variant of a basic emotion or concept for angry in the North American literature (Gross & Ballif, 1991; Rosenqvist et al., 2014; Székely et al., 2011; Wang et al., 2014; Widen, 2013; Widen & Russell, 2010). It is possible that this is a concept more prevalent to South Africans, originating from United Kingdom English. Buchanan (2007) also explored the emotional adjectives produced by an emotional literacy intervention called the *Ububele persona dolls* programme in a class setting amongst a group of preschoolers in South Africa with similar findings. Buchanan (2007) also found that "cross" was an adjective mentioned by the group of South African preschoolers participating in the *Ububele persona doll* programme. She mentions that "cross" does not appear on the list of adjectives to which the author was comparing their results. She argues that "cross" implies a different intensity to angry

(Buchanan, 2007). This finding also highlights the importance of taking the participants own vocabulary into account as there may be substantial conceptual differences between emotions in different contexts.

6.2.2. Mental States vs Physical States

"Angry" was the response provided most often by participants but the concepts that seemed to be the most well developed for them included broadly valanced categories of "feeling good" and feeling "hurt or upset". Human (2018) found that even the school-aged children in her study within the South African context used vocabulary such as "bad" and "hurt". In the present study with preschoolers, the target "sad" cartoon lion drawing elicited the label "crying" most often. The fact that the children focused on the action rather than the feeling could be attributed to the lack of situational or contextual information provided by the drawing. The bias of these young children to recognise physical states and actions was also found in an adult sample from the Namibian Himba culture when engaging in a facial expression sorting task. They would sort pictures of staged facial expressions of the basic emotions into actions, such as smiling and looking, rather than by emotional content (Gendron et al., 2014). However, with further probing the participants in the current study would offer that crying meant "sad" which shows that they had developed an understanding of what "sad" might look like on somebody else. Therefore, including more contextual and situational information might have allowed the participants to differentiate between the action of crying and the concept of "sad".

The participants would also make a connection between the action of crying and feeling sick or getting hurt. Shablack et al. (2020) found the same phenomenon with children aged 3-5 where they would attribute states of being sick and hurt to how the character in the study was feeling. What is interesting is that Ebrahimpour et al. (2019) explored children's concepts of pain and found that sources of pain could be internal, external or emotional and

were mostly characterised by unpleasantness and negativity. Therefore, in the case of feeling "hurt" and "sick" the participants could be referring to both a physical state and/or a mental state of generally feeling bad (Shablack et al., 2020). For example, both physical states and mental states could be being described when a participant described that he was sad because he "hurt his finger" or another said that the lion might be sad because "someone pushed her down". According to the Conceptual Act Theory (Barrett, 2014), our brains automatically make sense of negative affect and physiological sensations such as crying and pain to interpret sensory input using conceptual knowledge about emotions. In other words, they will make sense of feeling bad, feeling pain, crying and the fact that they have been pushed down and will attribute it to the label "sad".

The vocabulary used by the group of preschoolers, indicative of a general understanding of unpleasantness or feeling bad, could be best characterised with the label "upset". This label was used for both the "angry" target drawing and the "sad" target drawing. Besides "hurt", "sad" and "upset" participants also used the concepts "unhappy" and "not happy". These are both concepts involving the negation of "happiness". The labels provided for the "happy" target drawing included "happy", "nice" and "better" and "excited".

In Buchanan's (2007) study exploring emotion adjectives amongst a group of South African preschoolers in the Gauteng province, "happy" and "sad" were used the most often. The findings from the present study, that participants might have been using general categories or understandings of feeling "good" and feeling "bad", are in line with the conclusion that Buchanan (2007) draws from her own study. She argues that it is possible that "happy" and "sad" were used most often because the preschoolers were using broad undifferentiated categories of feeling "good" or "bad". In her study, "scared" and "angry" were mentioned less often than "happy' or "sad" and cross, excited and sick were all mentioned in one or two sessions.

6.2.3. The Benefits of Exploration vs Correct or Incorrect Responses

The labels the children provided for the "scared" cartoon lion drawing included being "nervous", "worried" and "afraid". The vocabulary provided so far, according to Ekman and Cordaro (2011), would be considered variants or different intensities of the basic emotions. They argue that basic emotions are experienced on a continuum of intensity and that "worried" and being "nervous" are just two different intensities of fear. Although "worried", "nervous", and "excited" may be considered variants of the basic emotions to some, the fact that participants produced this vocabulary for the target drawings offers an opportunity to attempt to elaborate on these emotions to better understand the similarities and differences between the concepts they are using. In an intervention setting, qualitative, open-ended questions offer an opportunity to elaborate on any concepts and understand them better by highlighting their similarities and differences (Hoemann et al., 2019; Hoffmann et al., 2020).

A common trend in the literature is to code labels as either being "incorrectly" or "correctly" recognised depending on whether they are considered variations of the emotion or not. Judgements based on the percentage of children labelling or matching the facial expressions correctly and incorrectly inform the outcomes of many of the emotion recognition studies (Gross & Ballif, 1991; Rosenqvist et al., 2014; Székely et al., 2011; Wang et al., 2014; Widen, 2013; Widen & Russell, 2010). However, using a qualitative approach, allowed for the vocabulary and concepts provided to be explored rather than conflated into one emotion category. For example: "surprised", although usually depicted as a basic emotion category on its own, was also identified by participants when discussing what was meant to be the "scared" target drawing. "Surprise" has not simply been deemed to be an "incorrect" label. This study provided an opportunity to explore the possible reasons why the emotion "surprise" was chosen.

6.2.4. Development of Differentiated Emotions

It was interesting that participants seemed to show general undifferentiated understanding of feeling "bad" or "upset". However, at the same time, some participants were able to introduce complex concepts, such as feeling "proud" and feeling "worried". According to Neuman et al. (2011), children go through a mapping process with a superficial understanding of certain words that they have heard before developing more sophisticated, categorised concepts. It was difficult from this study to determine whether the participants were providing emotion labels without having a fully developed conceptual understanding of that emotion. For example, "angry" was easily labelled and yet not always well differentiated within the stories provided by participants. Some of the participants relied on the progression/order of emotion drawings to determine what the picture depicted. Even though some participants relied on literal understandings of the word "feeling" when being asked about the first picture with little context, they had no problem identifying "angry" and seemed to understand from then on that they were being asked to identify emotions. Children commented on the progression of drawings and order seemed to matter to accuracy.

Participants that used vocabulary such as "nervous" "worried" and "proud" seemed to show that they had rather well-developed conceptual knowledge of these words. "Proud", a concept that is not easily recognised by preschoolers was mentioned in a story provided for the target "happy" picture (Nelson & Russell, 2012). This is not surprising as Hoemann et al. (2019) argue that children could learn emotion concepts much earlier than they would be able to 'recognise' them. Nelson and Russell (2012) argue that a more appropriate cue for "pride" would be stories that describe a pride evoking event. Instances such as this could pose difficulties for the argument that more complex aspects of emotion or concepts only develop after the recognition of facial expressions or the toehold hypothesis which states that facial expressions form the first insight into an emotion (Pons et al., 2004; Strand et al., 2016). In

order to establish the level of understanding of the concept described, it was important to find out, from the participants' perspective, what features of the drawing allowed them to provide a label and how they described the emotions in narratives of the lion and themselves. According to the Conceptual Act Theory (Barrett, 2014) emotion labels, emotional expressions and emotional situations are necessary in the process of emotion construction.

6.3. Research Question 2: What Features in the Drawings help the Preschoolers to Identify the Emotions?

6.3.1. The Angry Lion in Context

DeKlerk et al. (2014) also found the label "anger" to be more accurately used than "sadness" in a group of South African preschoolers. They suggested that perhaps the children developed the concept for "angry" before "sadness". However, it may also be that there was more emotional information given in the "angry" target picture. This seemed to be what occurred in the present study. From the explanations given by participants, the "angry" lion seemed to be the most identifiable. This was most likely because there was the least misinterpretation of contextual cues for this drawing and the cues seemed to provide enough emotional information for the participants to understand what was being depicted. According to Barrett et al. (2011) perceivers will use whatever contextual information is available to them in order to provide a label or in order to organise or match pictures.

The participants mentioned that the lion's mouth and eyebrows allowed them to recognise that the lion was angry. This was the case with most of the target pictures and it could therefore be argued that the face, mouth and eyes seemed to be the point of focus for many of the participants. According to some, the mouth and the eyes were the most important features of the face used to identify emotions for both children and young adults (Cannoni et al., 2021; Wegrzyn et al., 2017). Bombari et al. (2013) looked at a group of adults facial processing and found that the importance of the mouth and eyes in perceiving emotion

differed by the emotion tested. The mouth was important for recognition of fear and happiness and the eyes for fear, anger and sadness. However, overall and in preschoolers, emotional facial expressions are processed holistically (Durand et al., 2007).

In the present study, both facial expressions and postural gestures were depicted. It is possible that when facial expressions and postural cues are presented, preschoolers rely on the facial features rather than the whole depiction of both posture and facial expression (Nelson & Russell, 2011). However, this depends on the emotion. Children as young as six, perceive emotions holistically and in context when there are both facial and body postures (Mondloch et al., 2013). It would be interesting to have seen if "angry" would have been as easily 'recognised' if the picture presented in this study did not depict crossed arms.

Aviezer et al. (2012b) conducted a study where the same facial expression was presented in different contexts and was interpreted differently depending on the context. Context might have helped the participants to identify "anger" from what might have been an otherwise indeterminate face (Pollak et al., 2019). With limited vocabulary it might have been easier for the participants to explain that the lion had an "angry" face or an "angry" mouth. Interestingly, lions were also closely associated with aggression and anger which might have made it easier for the children to perceive the lion as angry rather than "happy", "sad" or "scared". According to the face-inferiority effect, children do better at distinguishing emotion when they are given a task that provides them with more contextual information, such as the cause or consequence of an emotion, than just a facial expression (Wang et al., 2014; Widen & Russell, 2010). The lion itself could therefore have evoked situational information that provided context for the pictures.

6.3.2. The Sick Lion in Context

Another face that may have been indeterminate without context is the "happy" face. The depiction of "happy" presented relatively little emotional information except for a smile.

There was also no priming done in the present study to indicate to the participants that they were being asked to identify feeling. It is important to note that studies that use the free labelling activity and prime the children first by discussing feeling words, usually have better outcomes than studies that do not (Widen & Russell, 2010). The Conceptual Act Theory (Barrett, 2014) predicted that the participants in this study would struggle to identify the emotions if it was difficult for them to tap into their conceptual knowledge for emotions (Nook et al., 2015). In fact, the participants often gave answers related to literal understandings of feeling such as, "the lion feels soft and fluffy". The participants had to be probed until they offered an emotion-related word. However, it seemed to be clear to the participants that they were being asked about emotions after seeing the "angry" picture which contained more emotional information or context.

It became clear quite early in the study that the participants were not only using the features of the drawing but any situational information they perceived to guess what the researcher was asking them. As mentioned, the context used to determine what is being depicted need not be emotional information but can be any situational information (Barrett et al., 2011). A participant brings whatever concepts they understand to the activity in order to perceive what is being depicted (Nook et al., 2015). In this study for example, the happy face, with very little emotional information was often perceived in the context of COVID-19. The participants were unintentionally primed by the drawing of the lion wearing the mask. For some participants, this provided the contextual information needed to create a narrative about mask-wearing or what the participants understood about being sick. This means that although this research set out to explore the emotional vocabulary of preschoolers, the novel instrument also provided valuable information on how this group of preschoolers conceptualised mask-wearing/COVID-19 and how this related to their understanding of being sick in general. For example, the participants that identified that the lion was "better" could

have been simply referring to the fact that the lion was no longer wearing the mask, indicating that the lion was now no longer sick. However, many of the participants pointed out that they knew the lion was feeling better because it was smiling. This implies that they understood that the lion was feeling some kind of positive affect while no longer wearing the mask. The mask may have symbolised negative affect.

6.3.3. Activating Conceptual Knowledge

Widen and Russell (2010) state that as children's understanding of emotion increases, the cue that is relied on to perceive the emotion may change. They may focus on the face, mouth and eyes in their early ages because this may be the easiest emotional information to understand. However, as they develop more sophisticated concepts of emotions, they may rely more on causes and consequences or other contextual cues to differentiate emotions. This is in line with the response of a girl aged 6 in the study who differentiated being angry from being sad by mentioning that she knew she was angry because she was yelling and shouting.

In this study, the features of the target "scared" drawing were often misinterpreted, particularly by those participants that had not fully developed the conceptual knowledge that you may shiver or sweat when you are scared or nervous. The participants would perceive the shivering to be portraying the physical states of being hot or cold. As in the study by Shablack et al. (2020) the children could have been biased towards answering based on physical states rather than emotional states because of the lack of emotional information available to them.

In the lion picture, an open mouth and raised eyebrows could easily be misinterpreted as surprise, especially if participants were relying on the facial features for information rather than the other contextual information provided. Holodynski and Seeger (2019) make an important point that it is a developmental feat for children to be able to link the sensations they may feel with how this may look on the outside or how this may be depicted in a

drawing. It would have to be understood that shivering and sweating are physical reactions that may happen to others when scared. The participants would also have to know how this might look in a drawing. However, this presupposes that they have already learned these signs rather than being able to automatically 'recognise' them from the drawing.

If the emotional information that was provided by depictions in the story were misunderstood, it would be more difficult for the participant to identify the emotion. One participant identified "scared" for the target "scared" drawing because they knew that "her hands are together like so and her feet are like so". They saw weak knees, straight arms and flexed hands as relating to being "scared". However, another participant identified "surprised" and mentioned that they did not know why the lion was standing the way that it was. This shows how the features of the drawing played an integral part in activating or not activating certain emotional conceptual knowledge in the participants (Nook et al., 2015).

6.3.4. How is Conceptual Knowledge Developed?

Hoemann et al. (2019) argue that children may develop emotion concepts through explicit labelling. This would include instances where the participants can remember exact moments when they directly acquired information that they could integrate into their emotion concepts. For example, this could have occurred when the participant watched the movie about emotions or the participant's father said that people cry when their hearts are broken. Another participant showed this explicit labelling when mentioning being taught by their mother that "happy" was depicted by a smile or an upward turned line while "sad" was a downward turned line. In contrast to this, many of the participants who "just knew" or mentioned that they heard it from their parents could have probably learnt emotion concepts through what Hoemann et al. (2019) argue is an implicit process. For example, many of the participants who mentioned that crying meant "sad" could have learnt this from incidents of getting hurt, physically or emotionally and being comforted by their parents. Perhaps the parents would

even say something along the lines of "don't be sad". It becomes easy for the children to then find similarities and differences between the incidents when the labels are used or when the comforting occurs (Gelman, 2009; Hoemann et al., 2019). Facial expressions could be learned in the same way through a mirroring process. Perhaps infants mirror an expression of their parents. When this expression is displayed in a context that the adult deems should elicit that emotion, parents may label the expression. This would allow infants to start making a connection between the expression they are mirroring with their internal feelings and the label that has been used (Holodynski & Seeger, 2019). The Conceptual Act theory (Barrett, 2014) allows for this kind of developmental understanding of emotion where the participant is undergoing a period of rapid language and conceptual categorisation but this conceptual development is still context-dependant.

6.4. Research Question 3 And 4: Storytelling and the Narrative Preference of Preschoolers

6.4.1. The Narrative Structure of Emotions

Something that made this research unique was that it allowed the participants to produce their own emotional situations for the set of cartoon lion drawings and themselves. Widen and Russell (2010) believe that children understand emotions in a narrative context. This is because, as the Conceptual Act Theory states, the stored representations of emotion labels, emotional expressions and emotional situations are influenced by society, culture and past experience (Barrett, 2014). Conceptual knowledge is developed within a particular context and is inherently influenced be culture and language. The conceptual knowledge about emotions that was found in this study, is therefore situated knowledge i.e., knowledge obtained from within and for a South African context and therefore an African context (Ratele, 2017).

Telling stories allows children to reflect how they understand an emotion from within their culture, society and from their past experience. This is in line with theories of Psychology that argue that these South African children exist within embedded systems (Bronfenbrenner; 1977), with specific socio-cultural influences (Vygotsky; 1929). By aiming to seek knowledge about emotions in this way, a knowledge base is being created from within the South African context (Ratele, 2017). Narratives seem to provide preschoolers with an opportunity to share their own feelings while also allowing them the chance to understand the emotions of others (Buchanan, 2007).

Participants were able to describe emotional situations or the causes and consequences for emotions for both themselves and for the set of cartoon lion drawings using narrative cues. In the present study, participants would often describe what may have happened first and then when probed would be able to provide a label for the emotion, suggesting the importance of activating conceptual knowledge using a narrative structure. What was important to note was that the stories provided for the cartoon lion drawings were very similar in nature to the stories that the participants provided for themselves. This clearly demonstrates that the participants were successfully projecting what they knew about emotions and the causes of emotions onto the set of cartoon lion drawings (Inagaki & Hatano, 1987). Children can infer mental states onto narrative stories as young as three years old (Nicolopoulou et al., 2021). In fact, South African participants in a study on fictional narratives inferred both mental states, such as emotions, and physical states, such as being hurt, onto a bear narrative in a study on children's narrative abilities (Willenberg, 2017). Pons et al. (2004) claim that children would be able to anticipate what others are feeling by understanding what may have caused those feelings. In the preschool years this typically includes external causes such as receiving gifts, falling and hurting oneself. However, contrary to this there were also participants who spoke about more mentalistic internal causes

of emotion in the present study, such as friends not liking them anymore or getting their heart broken.

In South Africa, a study about strengthening language education explored the favourite stories of preschoolers by looking at their narratives and drawings. Moen and Joubert (2015) argue that preschoolers were able to share their inner worlds, their feelings and thoughts through drawings and narratives. Surprisingly, they also found that the preschoolers related stories about the "Three Little Pigs" and "Goldilocks" which shows how often these stories are relayed to preschoolers. What was important to note is that they gave human-like qualities to the animals in their story. The participants also included animals familiar in the South African context such as lion. The authors argue that the children have close knowledge of these animals (Moen & Joubert, 2015). The participants in the present study were also able to give human-like qualities to the cartoon lion character.

Participants were easily able to access conceptual knowledge when it came to lions. They used the lions to describe feelings in a narrative structure. It was encouraging to see that participants would base their choice of cartoon lion drawing on the one they preferred. In some cases, the participants did not gender the lions at all, mistaking the female lion for a tiger. However, it was concerning that in possibly two cases, emotions became gendered, and this might have been encouraged by the gendering of the female lion with the bow. Even though participants were allowed to choose a drawing, gender socialisation had clearly already taken place. What this showed was that children as young as four and five years old could already be gendering emotions and actions. This was seen when one participant perceived the "scared" cartoon lion drawing as a "crying girl" and another participant mentioned that the "scared" drawing looked like a "baby" suggesting that only babies get scared. The researcher is hesitant to interpret the participant's statements as this could be making assumptions based on the researcher's background in gender research. However, it is

possible that societal understandings of seeing scared/nervous or worried and crying as something weak and only meant for babies and girls could be evident here. O' Neal and Magai (2005) found that parents spoke to girls more often about sadness than boys. In a study by Widen and Russell (2002) girls are recognised more easily as being fearful. This gendering could be explored in future research as it could pose a dilemma for using animals where male and female depictions are seemingly dichotomous.

6.4.2. Narratives in a Pandemic

What is relatively encouraging about the stories provided by the preschoolers in the midst of a pandemic, is that most of the stories seemed to relate to normal activities in preschoolers' lives. They mostly revolved around receiving gifts, enjoying birthdays, and sharing or losing toys. In fact, the stories provided were very similar to the narratives produced by preschoolers and used in Widen and Russell's (2010) study on emotion recognition. In the rapport building activity (See section 4.6.4.1), the participants drew pictures of things that made them happy and were relevant to their experiences, including their family, flowers and ice-cream. In Moen and Joubert's (2015) study they found that the South African preschoolers would produce a mix of fantasy and reality in what they chose to draw but they would always draw and create stories about things familiar and relevant to them such as their families or familiar objects.

Being "afraid" and being "scared" were often mentioned outside of the target "scared" drawing and the stories provided were the same developmentally appropriate fears found by Loxton (2009a). The narratives provided included stories of fearing monsters and imaginary creatures like ghosts, nightmares, lions, and tigers. The target "scared" drawing seemed to facilitate discussions of being worried or nervous in more realistic everyday contexts such as having to go somewhere new and having to go into town. For these children, perhaps "scary" things are the more stereotypical scary scenarios while they apply concepts

such as “nervousness” and “worry” to more realistic scenarios. Sorin (2003) argues that as children get older they tend to identify more realistic fears. Muris et al. (2008) argue that there are multiple pathways to fear acquisition. Perhaps, when children are relaying information on fear, it may include stereotypical understandings of what may be “scary” based on how the concept of fear has developed for them. The concept may be different for when they are discussing fears in general versus when they are discussing their own fears.

What was more concerning was when stories were projected onto the lion that possibly indicated fear, anger and sadness because of COVID-19. For example, the children mentioned that “Corona was going to get into the nose or mouth”. While this could indicate warnings given to children about why they must wear their masks, the statement was given while discussing the “scared” target drawing. One story was about the lion not liking or not wanting to wear masks anymore. Assathiany et al. (2021) looked at what paediatricians and parents thought about the fact that 6-year-olds would have to wear masks. They argue that factors that may play a role in mask-wearing include the assimilation to wearing masks and the way in which parents educate the children about mask-wearing. Interestingly, younger children seemed to be more willing to wear masks than older children. However, their parents did report anxiety and sadness. There is no research on mask-wearing from the perspective of preschoolers themselves.

Some stories included feelings of being upset at being sick and being happy when outside or wanting to be at home where there is “no corona”. It is possible that the study uncovered some elements of what children may be feeling about COVID-19. The fact that COVID-19 was related to all the negative-valenced emotions while being “better” was related to the positive valanced emotions could show that children are “upset” about COVID-19. However, it is also possible that the participants felt that the lion was feeling better because it had worn the mask and now was no longer sick.

There is relatively little research on the effects of COVID-19 on the mental health of children at this point. However, editorials have been published with warnings about the possible and potential long-term effects and sleeper effects of lockdown and quarantine on children (Lee, 2020; Liu et al., 2020; Wade et al., 2020). There has also been concern about the clinginess that has been found in children between the ages of three and six (Singh et al., 2020). Once aspect of the study that was quite concerning was the narratives that seemed to relate to this clinginess or possible separation anxiety resulting from lockdown and going back to school. While fear of the unfamiliar and separation are common childhood fears (Sorin, 2003), the fears and sadness of these children could be related to COVID-19. Participants mentioned not having anyone to play with, wanting to be home where there was no COVID-19 and missing their parents who were working. One participant related a fear that would not be a typical childhood fear – a fear of going to town with a parent. This could have indicated a fear of the virus. However, it would be important to corroborate these findings with further studies as these are assumptions on the researcher's part. It is also unclear if these stories would have been provided without the unintentional priming of the mask.

The unintentional priming of the mask drawing resulted in narratives about washing hands, eating soup, going to bed and sneezing which may provide some insights into how participants understand COVID-19 based on what adults have told them. Two participants mentioned that the winter and cold weather is related to being sick, while summer and warm weather is related to being better. One participant mentioned that there was no COVID-19 at home and another mentioned that there is no COVID-19 when playing outside.

6.4.3. The Benefits of Storytelling

The difficulty with many emotion development studies is that the expressive language abilities of preschoolers may confound results. Free-labelling activities could be assessing language abilities rather than emotion recognition abilities (Gross & Ballif, 1991). However, the methodology used in this study provided rich, contextually relevant narratives. An important finding facilitated through this methodology was that the narratives provided by the preshoolers in their own words showed that they struggle to differentiate between negatively valanced emotions even when they have the 'correct' vocabulary. For example, the label "angry" was provided often for the "angry" cartoon lion drawing. However, the stories around both "anger" and "sadness" were mostly based on instances of getting hurt, crying and being upset. Widen and Russell (2010) also found a label superiority affect with "anger" in their study which meant that children were better at providing the label for the "angry" facial expression than the possible cause and consequence of that expression. Human (2018) also found that there was some confusion between anger and sadness in a group of school aged South African children. Widen and Russell (2010) claim that anger and sadness could be differentiated through arousal levels. In the current study one participant knew that they were angry because they were yelling and shouting when their toy was broken by a friend.

The developmental progression seen in many studies is that fear and surprise are some of the last concepts to emerge (Gross & Ballif, 1991). This was also found in our study where fear was often misinterpreted but was also confused with surprise by possibly two participants. According to the Wang et al. (2014) study, "fearful" was often misidentified as "surprised" and therefore coded as "incorrect". "Surprise" and "fear" in contrast to "angry" have a face inferiority effect in which the stories that provide causes and consequences for being fearful and being surprised more easily allow children to label the emotion than the facial expression (Cheal & Rutherford, 2013; Widen & Russell, 2010). Cheal and Rutherford

(2013) mention that surprise and fear are often confused. Ekman and Cordaro (2011) explain that the emotional signals for "surprise" are raised eyebrows, and air quickly inhaled. However, the key aspect that may differentiate "fear" from "surprise", according to them, is the unexpected stimulus that characterises "surprise". Cheal and Rutherford (2013) point out that "surprise" is unique in the sense that it can be perceived as negative or positive. They mention that when context is provided in the form of causes and consequences, it can disambiguate the faces and the valence of the emotion.

6.5. Chapter Summary

This chapter first discussed in general, the type of emotional vocabulary being produced by this group of preschoolers. The labels provided in general were discussed and the preschoolers' bias towards physical states was also discussed. In the discussion of what features were being used to identify the emotions, it became clear that the participants would use whatever emotional or situational information was available to identify what was being depicted. They also struggled to identify or differentiate an emotion when they misunderstood contextual cues. Lastly, the emotional situations provided by the preschoolers were similar for both the lion and the preschoolers. Therefore, the set of cartoon lion drawings successfully relied on the developmental tendency of preschoolers to project their understanding of emotion onto a contextually relevant animal. The discussion was also permeated with information on how the participants perceived and felt about COVID-19 because the masked set of cartoon lion drawings unintentionally primed them. This chapter highlighted the importance of context and concept development in understanding as well as perceiving emotions.

Chapter 7

Conclusion, Limitations and Recommendations

7.1. Introduction to the Chapter

Preschool is a time of great neuroplasticity with a rapid expansion of vocabulary and concept development (Louw & Louw, 2014a; Mash & Wolfe, 2013; Neuman, et al., 2011). Anxiety symptomology was found to be high amongst South African preschoolers (Howard et al., 2017). This is therefore a key developmental period for which intervention and prevention efforts could have long-lasting psychosocial benefits (Luby, 2013). There is very little research on the emotional development of preschoolers in South Africa. Therefore, this study set out to explore, using a child-friendly and contextually relevant set of cartoon lion drawings, the emotional vocabulary of a group of preschoolers, the features they use to recognise and identify emotions and the stories about emotional situations that the participants use to explain both the cartoon lion drawing's emotions as well as their own. The following chapter will summarise the main findings of this study, *Undifferentiated Feelings and Nuanced Emotion Concepts, The Importance of Context and Emotion Narratives*. The limitations of the study will also be discussed. It will also discuss what was valuable about this study and how this study can inform both future research and future intervention and prevention programme development. It will end off with some concluding remarks.

7.2. Summary of the Main Findings

7.2.1. Undifferentiated Feelings and Nuanced Emotion Concepts

The Conceptual Act Theory (Barrett, 2014) predicted that young participants would be able to identify and discuss broad categories of positive and negative affect until they had developed differentiated emotion concepts. For example, they would understand feeling "good" versus feeling "bad". In order for them to identify and discuss the feelings portrayed

in the cartoon lion drawings, they used whatever conceptual knowledge that they had access to, including their stored representations of emotion labels, expressions and past experience, to make sense of the incoming sensory input.

The concept development and emotional vocabulary of this group of 18 preschoolers became clear. The participants had a bias towards physical states over mental states. For example, they would identify crying before attributing the crying to the emotional state of "sadness". However, in the cases where the participants discussed being "hurt" or feeling "sick", the distinction between physical states and mental states was less clear. Participants seemed to experience general undifferentiated feelings of being "upset". However, at the same time, some participants were able to introduce complex differentiated vocabulary and potentially concepts, such as feeling "proud", "worried" and "nervous".

7.2.2. The Importance of Context

The Conceptual Act theory (Barrett, 2014) also emphasises the importance of context in making sense of the cartoon lion drawings. "Scared" was the label provided the least often for the target drawing of "scared" and "angry" was the label provided most often for the target drawing of "angry". A face-inferiority effect was found with the concept "scared" and a face-superiority effect was found with the concept "angry". The participants appeared to understand "scared" more often when narrative context was provided. However, they were not able to differentiate "angry" as well in a narrative context. Participants also showed difficulty recognising an emotion when they misinterpreted contextual cues. The study showed that providing the participants with enough emotional information to trigger conceptual knowledge about a particular emotion was integral for the participant to recognise the emotion.

7.2.3. Emotion Narratives

Lastly, the participants would project emotions onto the cartoon lion drawings in the form of narratives. For example, narratives started to develop about the sick lion, the hurt lion, the upset lion, the lion that was upset with COVID-19 and the angry lion. These narratives seemed closely related to the participants own experiences. What was encouraging was that even though we are in the midst of a pandemic, the stories provided by the participants mostly revolved around receiving gifts, enjoying birthdays, wanting to play with friends and sharing or losing toys which seemed relevant and normal for the preschool period.

7.3. Critical review of the study

7.3.1. Limitations

Initial discussions with the preschool institution took place before the first cases of COVID-19 had reached South Africa. After COVID-19, many of the children at the preschool did not end up going back to school after the national lockdown (See Chapter 3 for discussion). This meant that the sample size of 18 participants was smaller than initially intended. However, the study succeeded in what it set out to achieve which was exploring the emotional vocabulary and emotional situations of this diverse, multi-cultural group of preschoolers. The aim of the study was not to generalise the findings, which means that a small sample size is not necessarily a limitation.

The researcher had hoped to be able to compare this exploration by chronological age. However, the majority of the 18 participants were five years old. Looking at one age group was beneficial in the sense that it gave a good indication of the emotional vocabulary and emotional situations of these five-year-olds. According to Wang et al. (2014) and Pons et al. (2004) five-year-olds are at a peak point in which they can recognise the different emotional expressions and they can identify external causes.

Shablack et al. (2020) found that sentence framing played a big role at different developmental ages. It made a difference whether the sentence was framed using the phrase "How is the character feeling?"; "How is the character?" and "How does the character feel about….?". Another limitation is therefore that the researcher used a mixture of sentence framing depending on what facilitated a response from the participant. This could have influenced the participant's bias towards identifying physical states. However, this emphasises the importance of teaching preschoolers the difference between feelings, physical states and actions.

Another important limitation is that the drawings could also be seen to depict stereotypical emotion features such as shivering/sweating when scared or baring teeth when angry. The participants may also understand certain emotions using context that could not be depicted in the drawings, such as actions like running and yelling or voice intonations. Limiting the drawings to the four basic emotions would also not allow for as many opportunities for the participants to offer up emotions or feelings that may fall outside of the broad categories depicted by the drawings. In this study, the faces, body postures and gestures depicted in the contextually appropriate cartoon lion drawings were meant to convey emotional information that would facilitate discussion based on the emotions that preschoolers have reportedly been able to recognise in previous studies.

Lastly, when a participant did not provide a label that related to emotions but rather described a story that seemed to imply a certain emotion, the researcher would make an assumption about whether the participant was actually tapping into conceptual knowledge about that emotion as they did not explicitly state what emotion they were talking about. A challenge was presented by the heavy reliance on listening to the participants stories while they wore masks. The fact that the researcher sometimes misheard what the participants were saying because of their masks could be seen as a limitation.

7.3.2. Value Added by this Research

Despite these limitations, one of the most important strengths of this study was that participants clearly enjoyed and were able to provide their own narratives for emotional situations. Providing their own stories allowed the participants to explain their emotional inner worlds and to explain their understanding of others emotional inner worlds. This research was unique in the sense that it allowed the participants to produce their own emotional situations for the set of cartoon lion drawings and for themselves.

The benefit of this approach was also that even if the participants provided what may be considered an "incorrect" label for the depiction, for example surprise for the fear depiction, the features used and stories described provided important insights into why the participants might have provided that label. Sometimes participants would not provide the correct label but provided seemingly correct emotional descriptions. This would not have been possible without a qualitative research approach (see review by Gross & Ballif, 1991). Free-labelling has been considered a limitation by some who have argued that this methodology tests vocabulary and not emotion understanding. However, free-labelling with further exploration through stories allows researchers to get a better understanding of the processes of emotion recognition and labelling from the preschoolers' perspective.

Another unique and successful aspect of this study was that the cartoon lion drawing proved to be a contextually relevant character for the participants. They were able to create narratives about the cartoon lion and what the cartoon lion was feeling and this seemed to be closely related to their own feelings. With little previous research on emotion recognition and development in South Africa amongst preschoolers (DeKlerk et al., 2014; Loxton, 2009a), this gives a clear indication of the narrative way in which the preschoolers talk about emotion and how these narratives can be encouraged by the use of a contextually relevant animal

drawing. It also provides motivation for researchers to be more willing to use child-friendly semi-structured interview methods with preschoolers.

Lastly, the process of adapting this research for the COVID-19 context initially seemed as though it would limit the research significantly. The expectations were that there would be fewer participants, difficulties in terms of wearing masks and using hand sanitiser. However, the flexibility maintained in order to adapt to COVID-19 provided unexpected value to this research. Very little research has been done with children to discuss how they feel about COVID-19. The unintentional priming of the participants to answer questions in relation to COVID-19, due to the use of a set of cartoon lion drawings with a mask, provided valuable insights. This study could therefore provide some of the first qualitative insights of how preschoolers conceptualise and feel about COVID-19 in South Africa.

It is hoped that the knowledge generated by this study on preschoolers' feelings and emotions will contribute to filling a gap in research that exists when it comes to understanding emotions and feelings from the perspective of preschoolers in the South African Context.

7.3.3. Recommendations

Recommendations for Future Research. The insights gained from this study were therefore invaluable and could hopefully motivate future research on the contextual development of emotion concepts amongst South African preschoolers. Firstly, this study has provided contextually relevant South African narratives that can be used in future research to explore emotion development in early childhood. It would be important to find a way to understand emotions in a qualitative and narrative way using projective methods that are not limited by the emotional categories imposed by the researcher. It would also be interesting to see how changing the progression or order of the emotion depictions would change the findings.

The unintentional priming of the COVID-19 narratives show that the contextually relevant set of cartoon lion drawings with a mask on could provide an important tool to understand how young South African children feel about COVID-19. The masked cartoon lion drawings, with the help of an emotion priming activity, could provide a valuable developmentally appropriate data collection instrument in future COVID-19 research. The fact that some of the stories seemed to relate to 'not having anyone to play with' and 'missing parents who were at work' could be an indication of the separation anxieties that South African children may be experiencing in the wake of lockdown. The cartoon lion drawings could be used as a methodology to assess the long-term impact of lockdown on the mental health of children in South Africa (Wade et al., 2020). Further research can also collaborate the finding that the set of cartoon lion drawings was relevant and familiar imagery for preschoolers. The possible gender implications of these lion drawings should also be further explored.

Recommendations for Prevention and Intervention Settings. The study could also provide valuable insights for prevention and intervention programmes which could make use of the contextually relevant South African narratives provided. The contextually relevant set of cartoon lion drawings may allow participants to develop their emotional vocabulary, elaborate on emotions described and could be used to assist children with differentiating between broad category emotions such as "good" and "bad". For example, it would be important for preschoolers to learn that children do not always cry when they are sad. They could also be prompted to provide more examples of what children may do when they are sad. It would also be important for them to know that it may not always be possible to tell when someone is angry. The narratives provided, including those told for "nervous", "worried", "surprised", "proud" and "excited" could therefore be applied to the set of cartoon lion drawings in order to allow for South African children to elaborate on their emotions.

Emotion interventions that currently exist in North America show the importance of encouraging concept development rather than only developing the emotional vocabulary of preschoolers. For example “the mood meter” of the RULER intervention teaches children to identify feelings in terms of arousal/energy and pleasantness while assisting children to develop a nuanced emotional vocabulary (Hoffmann et al., 2020). The feeling words curriculum intervention known as ‘world of words’ also teaches preschoolers feeling words and assists children to categorise them hierarchically in order to promote concept development (Neuman et al., 2011). However, these interventions have been developed in North America and may not be relevant for South Africans. Storytelling could also be a method used to encourage contextually relevant concept development. This is especially true when one considers that emotions are constructed from within a particular context according to the Conceptual Act Theory (Barrett, 2014). Ratele’s (2017) framework for African Psychology would encourage the development of interventions from within the African context.

This study is an example of how an emotion intervention for preschoolers could be culturally relevant and locally developed. This would be similar to the *Ububele Persona Dolls Emotional Literacy Programme* intervention in South Africa (Buchanan, 2007; Irish, 2009) that also shows how storytelling and a narrative context can provide preschoolers opportunities to develop their emotional literacy in classrooms. The use of a contextually relevant cartoon lion drawing, onto which children could project their emotional narratives could therefore even provide opportunities for creating universal, school-based interventions specifically developed for a Low Middle Income country like South Africa (Bradshaw et al., 2021).

7.4. Concluding remarks

The contextually relevant lion cartoon drawings used in this study helped the participants to form narratives where they were able to discuss and project their own feelings and emotional situations onto a lion character. Any emotional and situational context or emotional information that was available to the participants was used in order to project these feelings and situations. A complex picture of preschoolers' emotions emerged, and it was only possible to map out this small group of preschoolers' emotion concepts and their conceptual understanding about COVID-19 because a qualitative, free-labelling approach was used. This proves that both emotional vocabulary and emotional concept development need to be explored qualitatively in order to gain a clear understanding of how context influences emotion understanding. The importance of learning how to differentiate feelings in narrative form rather than only using facial expressions seems clear. In order to improve emotion recognition and competence in a preschool population, contextually relevant emotional concept development should be promoted in order for emotional differentiation to occur. Preschoolers' cognitive abilities are often underestimated. However, the preschoolers in this study hypothesised about the drawings and, like most scientists would (Gopnik, 2012), used all the information available to them to identify what was being depicted. It is therefore the responsibility of those that interact with preschoolers to provide stimulating resources to enhance emotional concept development and emotional differentiation to ensure long-lasting social, academic and psychological benefits (Barrett et al., 2001; Hoffmann et al., 2020; Katz et al., 2012; Louw & Louw, 2014a; Rosenqvist et al., 2014).

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APPENDICES

Appendix A: Set of Cartoon Lion Drawings

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 5.1. Leo the Brave Lion: Happy Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 5.2. Lea the Brave Lioness: Happy Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 6.1. Leo the Brave Lion: Angry Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 6.2. Lea the Brave Lioness: Angry Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 7.1. Leo the Brave Lion: Scared Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 7.2. Lea the Brave Lioness: Scared Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 8.1. Leo the Brave Lion: Sad Feeling

Illustrated by Megan Howard (MA Psychology) © 2015

Figure 8.2. Lea the Brave Lioness: Sad Feeling

Figure 9.1. Lea the Brave Lioness: Following COVID-19 protocols

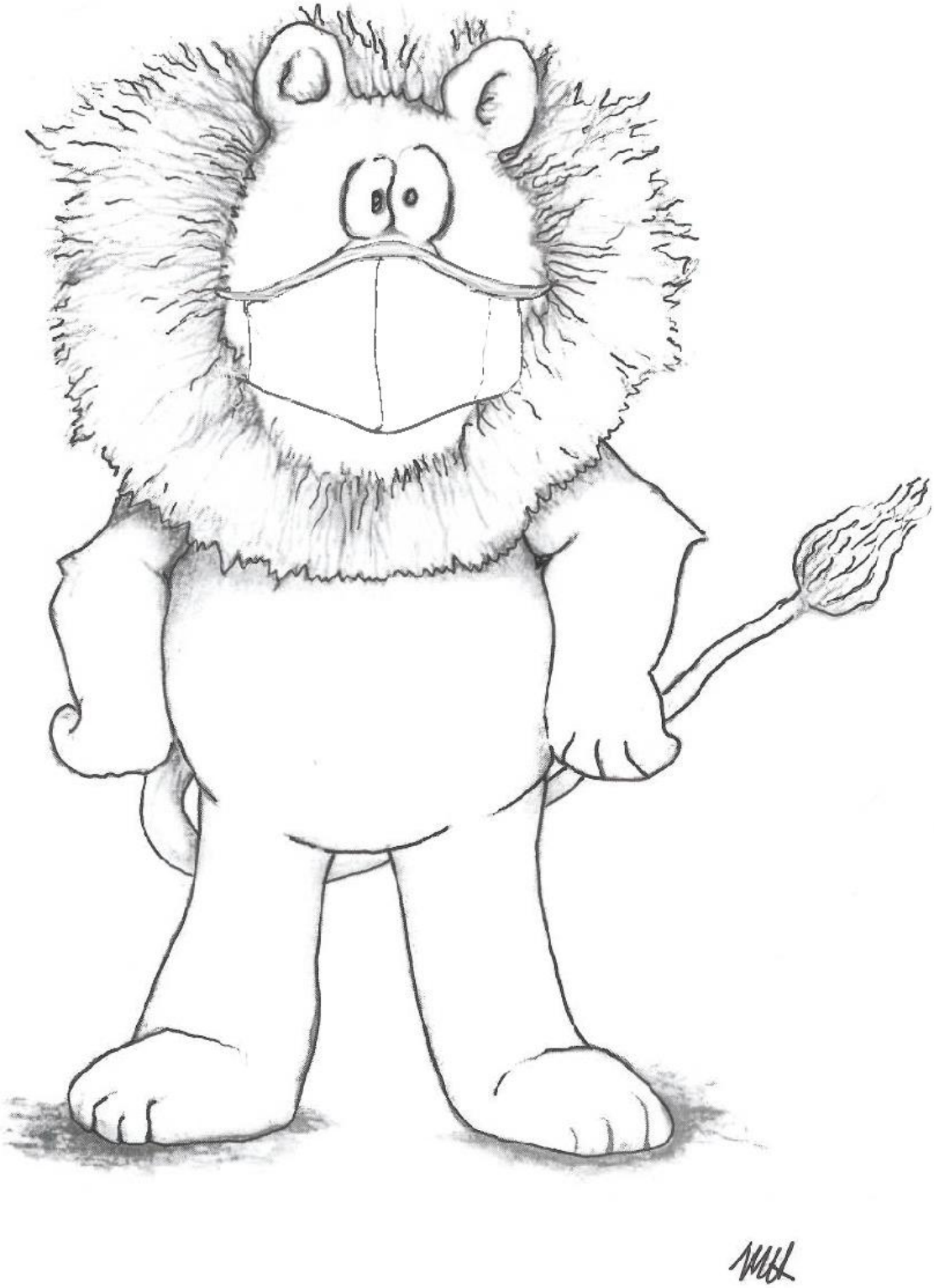


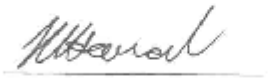
Figure 9.2. Leo the Brave Lion: Following COVID-19 protocols

Appendix B: Permission to use Megan Howards' Set of Cartoon Lion Drawings

I, the undersigned, have given preliminary permission to Prof Helene Loxton and by proxy, Caitlin Briedenhann, a Masters student in the Department of Psychology, Stellenbosch University, to use the set of cartoon lion drawings below.

They will be allowed to use these drawings for fulfilling the requirements of a Master's thesis. The thesis is to be done by Caitlin Briedenhann and is entitled: **Exploring the emotional vocabulary of preschoolers and the emotional situations they provide, using a set of contextually relevant, South African, cartoon lion drawings.**

However, this permission is granted on the condition that I will be acknowledged as the creator of the drawings in the research or in any publications that may come from this research.

Signature:  **Date:** 23 May 2019

Name: Megan Howard

1

Appendix C: Interview Schedule

Interviewer: Would you like to look at some drawings of Lea and Leo, the lions?

Research Question 1: What is the status of the emotional vocabulary of a group of South African preschoolers?

Interviewer: How do you think Lea/Leo feels? What happened here?/ What happened to Lea/Leo?/ What does he look like?

Research Question 2: What features in the drawings help the preschoolers to identify the emotions?

Interviewer: How do you know Lea/Leo feels that way?

In order to find out, from the participants perspective, where they may have learnt this information from, they will be asked?

Interviewer: Where have you heard about this/ Who has told you this/ Where did you see it?

Research Question 3: What stories about emotional situations do the preschoolers use to explain the emotions in the set of cartoon lion drawings?

Interviewer: Why do you think Lea/Leo feels that way? Why do you think that happened?/ Why do you think Lea or Leo looks that way?

Research Question 4: What stories do the preschoolers use to describe the emotional situations they have experienced?

Interviewer: Have you ever felt the same way? When have you felt this way? Has this happened to you?

These questions will be repeated for each of the four set of cartoon lion drawings

Appendix D: Request For an Appointment To Discuss Proposed Research With Preschool Institution

**Note:* This document contained confidential, identifying information and will be available on request.

Appendix E: Preliminary Permission Request Letter for the Preschool Institution at Which the Research Will Be Conducted

**Note:* This document contained confidential, identifying information and will be available on request.

Appendix F: Request for Free Psychological Services at a Community Psychology Clinic

*Note: This document contained confidential, identifying information and will be available on request.

Appendix G: Original Ethical Approval Period

NOTICE OF APPROVAL

REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

11 March 2020

Project number: 11572

Project Title: Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

Dear Miss Caitlin Briedenhann

Your response to stipulations submitted on 4 December 2019 was reviewed and approved by the REC: Humanities.

Please note the following for your approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
24 October 2019	23 October 2020

Appendix H: Informed Consent Form

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PARENT/LEGAL GUARDIAN CONSENT FOR CHILD TO PARTICIPATE IN RESEARCH

STELLENBOSCH UNIVERSITY

PARENT/LEGAL GUARDIAN CONSENT FOR CHILD TO PARTICIPATE IN RESEARCH

Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings.

We kindly invite you to allow your child to take part in a research study conducted by Ms Caitlin Briedenhann, under the supervision of Prof Helene Loxton from the Psychology Department at Stellenbosch University. The findings of this research will contribute to Ms Briedenhann's Master's degree in psychology and possible research articles. We have selected your child as a potential participant in this study as he / she falls into the target group of the project, namely that of preschool children between the ages of four and six years.

PURPOSE OF THE STUDY

The aim of this study is to gain a better understanding of preschoolers' emotional vocabulary and expression in a South African context. This could allow us to contribute to the development of future early interventions to promote the psychological well-being of young children from the South African context.

1. WHAT WILL BE ASKED OF MY CHILD?

Participation is completely voluntary. If you allow your child to take part in this study, the procedure will go as follows: the researcher will approach your child to ask permission (assent) to take part in the study. If your child agrees to take part in the study, he / she will be

asked if he / she wants to take part in drawing activities and a conversation with the researcher. An individual interview will be conducted in a child-friendly manner for approximately 40 minutes with your child in the language of their choice (Afrikaans / English). This means that your child will only take part in the interview for as long as he / she feels comfortable. This will take place in the familiar environment of their preschool in a private room away from the other children. We will not require your child to sit for more than 15 minutes at a time. To make your child feel comfortable talking to the researcher, they will be asked to draw and the researcher will communicate about these drawings in a relaxed manner.

Due to the current concerns regarding COVID-19, the interviewers will follow the World Health Organization's (2020) advice on how to reduce the spread of the corona virus. The interviewer will isolate for 10 days before entering the preschool office premises (where the interviews will be conducted) and throughout the interviewing process. They will do an approved health check to screen for any symptoms before entering the premises. If they have any symptoms, the interview process will be stopped. The interviewer will not enter the actual preschool premises and will therefore not have any contact with your child if you choose not give the researcher permission to interview your child. They will keep at least a 2m distance from your child at all times. Both your child and the interviewer will wear a mask throughout the interview and there will be a Perspex screen between them. Lastly, strict hygiene standards will be maintained and an alcohol-based hand sanitizer will be used to sanitize hands and any resources used, before and after the interview. The interviewer will keep the hand sanitizer out of reach from your child. The interviewer will explain all these actions to your child by using a drawing of a non-threatening cartoon lion wearing a mask.

Once your child is comfortable, the researcher will continue to ask questions about child-friendly cartoon drawings of lions depicting basic emotions, namely happy, angry, scared and sad. The purpose of this is to determine which emotions your children can identify from these cartoon lion drawings, as well as what emotional situations the cartoons elicit. The conversation will end by giving your child the opportunity to tell their favourite story. With permission, your child's responses will be audio- recorded and written out.

2. POSSIBLE RISKS AND DISCOMFORTS

We do not foresee that your child will experience any discomfort during this project and we feel that the procedures put in place will reduce the risk of the virus being transmitted. In a

similar study, conducted by Loxton (2009) in the Stellenbosch environment, no young children reported any emotional discomfort. The researcher has experience working with young children and the supervisor is a registered psychologist. If any unexpected signs of emotional discomfort do occur, you can inform the researcher or her supervisor (Prof Loxton) using the contact details below. If necessary, Prof Loxton will be able to refer your child to [redacted] for free services. However, there are no foreseeable risks, discomforts or inconveniences that will be caused by participation in this research. You and your child are also allowed to withdraw from the study at any point in the research should you wish to do so and there will be no negative consequences for anyone.

3. POSSIBLE BENEFITS TO THE CHILD OR TO THE SOCIETY

It is likely that your child will enjoy, gain a better understanding of themselves and benefit from the activity as it is designed in a child-friendly way to get them to talk about emotions. Being able to identify emotions at an early age has been shown to have long-lasting benefits. The data collected in this research could also contribute to the development of future South African, preschool interventions that can promote emotional competence.

4. PAYMENT FOR PARTICIPATION

Neither you nor your child will be paid for taking part in this study.

5. PROTECTION OF YOUR AND YOUR CHILD'S INFORMATION, CONFIDENTIALITY AND IDENTITY

All information obtained from your child will be kept confidential at all times and you and your child will also remain anonymous. All the data collected will be kept electronically and will be password protected. Any paper data will be stored in a locked filing cabinet that only the supervisor and researcher will have access to. This data will only be kept for five years, after which it will be destroyed. Any information that could lead to the identification of you, your child or the preschool will not be used anywhere in the thesis or in any publications that may result from this research. The interviews may be discussed in terms of participant code, age or gender and any identifiers such as names will be coded immediately after the interviews. A research assistant may be employed to assist with the data collection from Afrikaans speaking children. A transcriber may also be employed to assist with the

transcriptions of the interviews. The transcriber will have to sign a non-disclosure agreement to ensure confidentiality.

6. PARTICIPATION AND WITHDRAWAL

You and your child can choose whether to be part of this study or not. You can refuse to be part of this study without any negative consequences. If you consent to your child taking part in the study, please note that your child may choose to withdraw or decline participation at any time without any negative consequences. You may also withdraw your child at any time even after you have given permission for them to be in the study. Any data collected from your child will be deleted if they choose to withdraw or if you choose to withdraw them. Your child may also refuse to answer any questions he/she does not want to answer and still remain in the study. The researcher may withdraw your child from this study if circumstances arise where it will be in the best interest of your child to do so.

7. RESEARCHERS' CONTACT INFORMATION

If you have any questions or concerns about this study, please feel free to contact the principal investigator, Ms Caitlin Briedenhann at her email address [redacted] and/or the supervisor Prof Helene Loxton at her email address [redacted] during office hours.

8. RIGHTS OF RESEARCH PARTICIPANTS

Your child may withdraw their consent at any time and discontinue participation without any negative consequences. Neither you nor your child are waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your or your child's rights as a research participant, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

DECLARATION OF CONSENT BY THE PARENT/ LEGAL GUARDIAN OF THE CHILD- PARTICIPANT

As the parent/legal guardian of the child I confirm that:

- I have read the above information and it is written in a language that I am comfortable with.
- I have had a chance to ask questions and all my questions have been answered.
- All issues related to privacy, and the confidentiality and use of the information have been explained.

By signing below, I _____ agree that the researcher may approach my child to take part in this research study, as conducted by Caitlin Briedenhann

_____ _____

Signature of Parent/Legal Guardian **Date**

DECLARATION BY THE PRINCIPAL INVESTIGATOR

As the **principal investigator,** I hereby declare that the information contained in this document has been thoroughly explained to the parent/legal guardian. I also declare that the parent/legal guardian was encouraged and given ample time to ask any questions.

_____ _____

Signature of Principal Investigator **Date**

Appendix I: Verbal Assent Discussion

Interviewer: Hello, my name is……and your name is?

Response:……

Interiewer: How old are you?

Response…….

Interviewer: Today we are going to do some drawings and talking. I have already asked your school and your Mommy/ Daddy (Use informed consent form to check this) and they said it would be okay as long as you also want to. Would you like to join me?

Response:……..

Interviewer: I am going to keep this on to record the things you say to me. Do you know what recording is? I want to use it to remember everything you tell me today. Would you like to listen to your voice? (Ask the child to say something into the recording and then play it back for them).

Everything that you tell me will be between us. I'm not going to tell anybody what you tell me here today. Would you still like to join me?

Response:……

Interviewer: It is very important that you know that you can tell me if you do not want to do something or if you want to leave.

Start with child-friendly drawing component.

Appendix J: Child-friendly Drawing Component to Facilitate Discussion and Build Rapport

Interviewer: Would you like to draw me a picture of a person? Here is some paper and pencils to do that.

Response:…….

Interviewer: Who is the person?

Response……

Interviewer: What is this person's name?

Response……

Interviewer: Can I perhaps keep this picture? Thank you very much.

*Adapted from Loxton (2009) child-friendly drawing components in their research with young children.

Loxton, H. (2009). Monsters in the dark and other scary things: Preschoolers' self-reports. *Journal of Child & Adolescent Mental Health, 21*(1), 47-60. https://doi:10.2989/jcamh.2009.21.1.7.809

Appendix K: Concluding Favourite Story-telling Component

Interviewer: What is your favourite story?

Response……

Interviewer: Where did you hear this story? / Who told you this story?

Response……

Interviewer: Can you please tell me your favourite story?

Response…….

Interviewer: Thank you very much. How was this time here with me for you today?

Response……..

*Adapted from Loxton (2009a) child-friendly drawing components.

Loxton, H. (2009a). Monsters in the dark and other scary things: Preschoolers' self-reports. *Journal of Child & Adolescent Mental Health, 21*(1), 47-60. https://doi:10.2989/jcamh.2009.21.1.7.809

Appendix L: Evaluation of Qualitative Analysis

TO: Caitlin Briedenhann

FROM: [redacted]

RESEARCH TITLE: Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

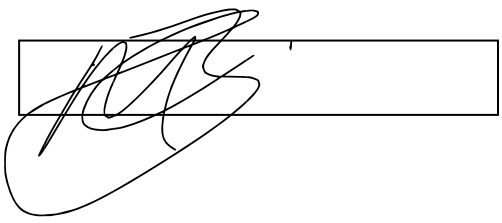
DATE: 28/07/2021

Conceptual Maps	**Agreement**	**Disagreement**
1. Drawing/Pictures	Yes	No
2. Lions As Wild Animals	Yes	No
3. Happy	Yes	No
4. Negative valanced feelings	Yes	No
5. Scared	Yes	No
6. Contextual Cues	Yes	No

PHD candidate

Psychology Department

Stellenbosch University Date



2021/08/27

Appendix M: Request for an Extension For Data Collection from Preschool Institution

**Note:* This document contained confidential, identifying information and will be available on request.

Appendix N: Extension of Ethics Approval Period

NOTICE OF APPROVAL

REC: SBER - Annual Progress/ Final Report

12 August 2020

Project number: 11572

Project Title: Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

Dear Miss Caitlin Briedenhann

Your REC: SBER - Annual Progress Report submitted on 3 August 2020 was reviewed and approved by the REC: Social, Behavioural and Education Research (REC: SBE).

Please note below expiration date of this approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
23 October 2020	22 October 2021

SUSPENSION OF PHYSICAL CONTACT RESEARCH DURING THE COVID-19 PANDEMIC

Due to the Covid-19 pandemic and resulting lockdown measures, all research activities requiring physical contact or being in undue physical proximity to human participants has been suspended by Stellenbosch University. Please refer to a formal statement issued by the REC: SBE on 20 March for more information on this.

This suspension will remain in force until such time as the social distancing requirements are relaxed by the national authorities to such an extent that in-person data collection from

participants will be allowed. This will be confirmed by a new statement from the REC: SBE on the university's dedicated Covid-19 webpage.

Until such time online or virtual data collection activities, individual or group interviews conducted via online meeting or web conferencing tools, such as Skype or Microsoft Teams are strongly encouraged in all SU research environments.

If you are required to amend your research methods due to this suspension, please submit an amendment to the REC: SBE as soon as possible. The instructions on how to submit an amendment to the REC can be found on this webpage: [instructions], or you can contact the REC Helpdesk for instructions on how to submit an amendment: applyethics@sun.ac.za.

Appendix O: Amendments to Ethics REC Based on COVID-19 Response

AMENDMENTS TO ETHICS REC: HUMMANITIES APPLICATION

Thank you for taking the time to review the following amendment requests to my ethics application. I am aware that I need to wait for the REC to determine that it will be safe and convenient for me to start my data collection. This will also depend on the national directives and governmental regulations with the hope that I would be able to collect data under Level 1 regulations. Below, I have detailed my risk mitigation Strategy. It is my belief that with this strategy in place, the benefits of the research will outweigh the risks.

Risk Mitigation Strategy:

- The Principal Investigator is the only member of the research team who will be conducting in-person interviews. The PI will self-isolate for 10 days before data collection, during data collection and for 10 days after data collection to reduce any risk of transmitting the virus.
- The PI will complete a health-check before entering the preschool institutions office space.
- The interviewer will use a printed-out school register of names in order to record which participants take part in the interviews. This register will only be handled by the PI and will be stored in a secure location for at least 3 months. After which, it will be destroyed.
- The PI will be interviewing the participants, one at a time, in a well-ventilated room separate from the preschool (in the offices adjacent to the school) and other children. The interviewer will therefore not enter the actual preschool premises. This will be included in the informed consent form to assure the parents that if they do not give

permission for their child to be interviewed, the researcher will have no contact with their child.

- The interviewer will wear their mask at all times and will sanitize their hands regularly. The participants are required to wear masks by the preschool institution and will be provided with sanitizer when they enter the room.
- The interviewer will keep a distance of 2 m from the participant while interviewing them. There will also be a Perspex screen between the participant and the interviewer.
- The materials used in the interview will be handled by the interviewer and will be sanitized. The pens used by the participants to draw and the chair used for the participant will be sanitized between interviews.
- The participants will be given a chance to discuss the non-threatening cartoon lion drawing wearing masks in order to reduce any anxiety around the procedures applied to reduce the risk.
- The children may benefit from discussing, in a child-friendly way, how to protect themselves and therefore their loved ones from getting the virus. They will benefit from having a chance to talk about emotions and drawings.

Appendix P: Notice of Approval to Conduct in Person Data Collection with Risk Mitigation Amendments

NOTICE OF APPROVAL

REC: SBER - Amendment Form

18 March 2021

Project number: 11572

Project Title: Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

Dear Miss Caitlin Briedenhann

Your REC: SBER - Amendment Form submitted on 04/02/2021 15:41 was reviewed and approved by the REC: Social, Behavioural and Education Research (REC: SBE).

Please note below expiration date of this approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
23 October 2020	22 October 2021

Appendix Q: Letter Created to Assure Parents of Ethical Approval of the Project.

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STELLENBOSCH
UNIVERSITY

NOTICE OF APPROVAL

REC: SBER - Amendment Form

18 March 2021

Project number: 11572

Project Title: Exploring the emotional vocabulary of South African preschoolers and their stories about emotional situations, using a set of cartoon lion drawings

Dear Parents

You would have received an invitation for your child to take part in an exciting and fun research activity.

This important study has received full ethical approval by the University of Stellenbosch (Project number: 11572). It has been quite a long journey as we were meant to start collecting data in April last year. However, we have also now received approval for our amendments in light of COVID-19. We have put measures in place to try and ensure the safety and well-being of every child (and their parents).

Thank you very much for considering this invitation for your child to participate in this project.

We are very excited to hear from you.

Kind regards,

Ms Caitlin Briedenhann (MA Student)